

Courses of Instruction - Graduate

AC Courses

AC-501. Managerial Accounting. 3.00 Credits.

This course covers the processes of identifying, measuring, analyzing, interpreting, and communicating accounting and financial data needed to make strategic and operational decisions. Students learn about the issues facing service, nonprofit, retail, and manufacturing firms and about topics such as activity-based costing, customer profitability analysis and budgeting and performance evaluation.

AC-520. Financial Accounting & Reporting. 3.00 Credits.

Review of accounting issues and concepts by focusing on issues affecting financial reporting, and by blending accounting theory with practical applications through extensive use of cases.

AC-541. Internal Controls / Sarbox. 3.00 Credits.

This course covers techniques to provide a reasonable assurance that an organization will achieve its objectives with respect to the effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulation. A major focus of the course is the Sarbanes-Oxley legislation dealing with securities acts, audit and non-audit services, and penalties for violations of securities and other laws. Prerequisites: AC-501.

AC-543. Forensic Accounting/Internal Auditing. 3.00 Credits.

This course examines how accountants use business information and financial reporting systems to estimate economic damages or identify errors or fraud in accounts or inventories. It incorporates the internal audit process of verifying the accuracy of internal records, searching for mismanagement and waste, reviewing the efficiency and effectiveness of operations, and advising on compliance with corporate policies and procedures and government laws, and regulations. Additional course fee of \$45. Prerequisites: AC-501 AC-520 AC-541.

AC-553. Corporate & Partnership Taxation. 3.00 Credits.

This course provides an in-depth analysis of factors affecting federal income tax planning and compliance for corporations and partnerships. Prerequisites: AC-501 AC-520.

AC-567. Introduction to Project Management. 3.00 Credits.

Students will enumerate and utilize best practices and current process guidelines in project management within a variety of corporate contexts and industries, in order to achieve organizational objectives through budgeting, planning, marketing, financial forecasting, staffing and human relations, as well as other aspects of management science at the project and/or enterprise levels. While doing so, students will incorporate contemporary developments in global and virtual project management.

AC-570. Financial Statement Analysis. 3.00 Credits.

Covers the application of analytical tools to general purpose financial statements necessary to evaluate the financial condition of the firm and evaluate the future prospects of the company. The "analyst" can be any of several interested groups: investor, creditor or other stakeholders such as employees, customers, suppliers or government. Prerequisites: AC-501.

AC-576. Project Portfolio Tools & Technology. 3.00 Credits.

Students will refine their practical, theoretical and technical competencies in project management consistent with industry best practices, focusing on the intricacies of managing projects within a contemporary competitive environment in order to deliver tangible business outcomes. They will do so by utilizing project organization, stakeholder analysis, communication planning, risk and issue management, quality management, procurement, and project leadership they will also frame their project management endeavors within the broader context of business execution, which includes program and portfolio management, organizational change, strategic business planning and implementation, as well as the operation of a project management office. Prerequisites: GB-567 OR AC-567.

AC-589. Topics in Management. 3.00 Credits.

Topics vary by term. Example topics may include but are not be limited to the following: advanced project management techniques; non-profit, philanthropic, and/or faith-based management; coding fundamentals for entrepreneurs, managers, and executives; and mindfulness in the workplace.

BA Courses

BA-501. Change for Each Student. 3.00 Credits.

BA-502. Change for Each Student. 3.00 Credits.

BA-503. Change for Each Student. 3.00 Credits.

BA-504. Change for Each Student. 3.00 Credits.

CJ Courses

CJ-616. U.S. Constitution and Criminal Justice. 3.00 Credits.

This course will be a comprehensive analysis of the United States Constitution with an exploration into the historical foundation and overall context of the constitution. In addition, students will also examine the U. S. Constitution and the relation to its impact at the local, state and federal levels. This will require an in-depth review of the key United States Supreme Court decisions and their effect on American law enforcement agencies' policy making.

CJ-617. Intro to International Criminal Justice. 3.00 Credits.

The course will inform about global, comparative, and transnational crime. Mainly, human trafficking, drug trafficking, weapons trafficking, terrorism, and information technology crime are discussed. This course introduces the nature and causes of crime internationally and prevention and control mechanisms. Students will study the comparative criminal justice system as it applies to transnational and international crime and the impact of international criminal law and human rights in dealing with crimes against humanity. Finally, this course will discuss the privatization of global justice and the future of global crime. This course is intended to equip students with the knowledge and skills necessary for careers in which the globalization of crime plays an important role.

CJ-642. Cyber-Criminology. 3.00 Credits.

This course provides an overview of cybercrime. Students will understand cybercrime in-depth and how traditional criminological theories can be reimagined to explain it. This course utilizes case studies regarding cybersecurity issues at the state and federal levels. It takes on current and proposed cybercrime legal policy and enforcement procedures for combating the cybercrime epidemic. The course explores causation, victimization, ethics, and societal consequences of cybercrime.

CJ-645. Cyberterrorism. 3.00 Credits.

This course explores the intersection of terrorism and cyberspace, focusing on methods, motivations, and impacts of cyber-terrorist activities. Students will examine how terrorist groups use the Internet for recruitment, propaganda, communication, and cyberattacks. The course will also cover the threats posed by cyberterrorism to national security, critical infrastructure, and global stability.

CJ-647. Artificial Intelligence and CJ. 3.00 Credits.

This course examines the transformative role of artificial intelligence (AI) in the criminal justice system. Students will explore how AI technologies are used in law enforcement, corrections, courts, and policy development and the ethical and legal challenges of their use. The course covers predictive policing, AI-driven surveillance, facial recognition, risk assessment tools in sentencing, and AI applications in crime prevention and investigation.

CJ-650. Research Methods in Criminal Justice. 3.00 Credits.

This course will focus on the basic techniques and designs used in criminal justice research. An emphasis is placed on problem-statement writing, research design, data gathering, data analysis, and evaluation. Topics of sampling theory, surveys, observations, experiments, and the Institution Review Board will be discussed. The course will prepare the student to gather decision-relevant information and how to influence policy decisions.

CJ-652. Multicultural Law Enforcement. 3.00 Credits.

Examination of roles of race and ethnicity in crime and justice. Focus on the differing experiences of racial/ethnic groups as they come into contact with the various agencies of the criminal justice system, racial disparity and discrimination in the criminal justice system, and the impact of criminal justice policy and practice on racial/ethnic minorities. Discussion of contemporary issues in race, ethnicity, and justice such as racial profiling, the impact of felony voting laws on racial minorities, and the ways in which cultural stereotypes about race/ethnicity shape policies and practices at the different stages of the criminal justice process (police, courts, corrections). Students will critically evaluate crime policy to identify meaningful solutions to increase social justice.

CJ-655. Transnational and Organized Crimes. 3.00 Credits.

This course provides an in-depth analysis of transnational and organized crime, focusing on the structures, operations, and impacts of criminal organizations that operate across national borders. The course will also address international cooperation in combating these crimes, the role of agencies such as INTERPOL and Europol, and strategies for disrupting criminal networks. Through case studies and analysis of current trends, students will develop a comprehensive understanding of the global impact of organized crime and the complexities involved in combating it.

CJ-657. Comparative Criminal Justice System. 3.00 Credits.

This course examines criminal justice systems' structures, functions, and processes across different countries and cultural contexts. Students will explore various justice models-adversarial, inquisitorial, and hybrid systems-and analyze how other nations handle policing, courts, and corrections. Emphasis is placed on understanding the diverse legal traditions and cultural values that shape criminal justice practices globally, including civil law, common law, Islamic law, and socialist legal systems. This course aims to broaden students' perspectives on justice and enhance their ability to analyze and apply international best practices in criminal justice.

CJ-658. Ethical Issues in Criminal Justice Admin. 3.00 Credits.

Exploration of ethical dilemmas faced by professionals in law enforcement, courts, and corrections. Examination of discretionary power in criminal justice agencies and different stages of the criminal justice process. Seminar discussion of/reflection on decision making and ethical scenarios in criminal justice contexts.

CJ-660. Theory and Practice of Criminal Administ. 3.00 Credits.

The course traces the development of the Criminal Justice System. Emphasis is placed on the conceptual foundations of criminal justice theory and practice. The theoretical perspectives, events, leaders, court decisions, and organizations that have shaped criminal justice administration are examined.

CJ-662. The Judicial System. 3.00 Credits.

This course examines the structure and operation of the criminal court systems of the United States at the local, state, and federal levels. The students will be introduced to the pretrial and adjudication processes and the organizational roles and behaviors within the court system. This course is designed to provide experience in critical analysis of current and emerging justice policies and practices within this same judicial system. Students will be required to analyze the relationship of court operations and constitutional mandates related to issues of judicial independence, interdependence, and their overall accountability.

CJ-663. Community Policing and Problem Solving. 3.00 Credits.

The philosophy of community policing will be discussed and practical community examples provided for the student to use the SARA method for a thorough problem-solving analysis. A historical review of community policing is provided. Significant attention is given to the rationale and implications of various methods of social control. Pre-requisite: CJA560.

CJ-665. Advanced Criminological Theory. 3.00 Credits.

Examination of classic and contemporary theoretical explanations of crime from multiple criminological perspectives including classical, biological, psychological, and sociological theories. Analysis of crime patterns and crime correlates and substantive focus on the application of such theories to criminal justice agencies, community, and society.

CJ-672. Terrorism. 3.00 Credits.

The pragmatic approach to the analysis of terrorism must be founded in the fundamental understanding of both the theories of terrorism and the practical aspects of implementing a coordinated response. The effect of globalization plays an important role today in the ability of any agency to prevent, protect, respond and mitigate a specific terror event. Through a comprehensive review of major theories, definitions, focused readings, and practical applications this course will provide the student with a thorough understanding of the nature and extent of terrorism today. The course will identify the major law enforcement, intelligence, and military agencies, and discuss their importance in providing global, national, and regional terror assessments.

CJ-674. Crim Justice Policy Formation & Analysis. 3.00 Credits.

This course will serve to bring the goals of fairness, justice and equality in a criminal justice system with regard to its effect on the organizational policy decision making process. The focus on the utilization of discretionary decision making by administrators throughout the entire criminal justice system will be critically analyzed. Students will be required to assess this discretionary decision making process and its impact on the daily functioning of the criminal justice system. Students will also examine how to identify and define discretionary decisions in the justice system, and how to establish methods for checking discretion.

CJ-688. Probat Parole & Community Corrections. 3.00 Credits.

This course is designed to analyze the current legal, managerial, and political factors which impact upon the probation and parole system. It will examine organizational innovations, caseload management techniques, and technological advances used to confront such problems.

CJ-690. Criminal Justice in the Field. 3.00 Credits.

This experiential course introduces students to the criminal justice system through interactive field experiences, professional guest speakers, and guided institutional visits. Students will visit various criminal justice facilities- such as correctional institutions, courts, forensic labs, and community organizations-to gain firsthand insight into their functions, operations, and challenges. Guest speakers from diverse areas within criminal justice will share professional experiences, discuss contemporary issues, and offer career insights, enriching students' perspectives on the field. Through reflective assignments and class discussions, students will connect these real-world experiences to theoretical concepts, preparing them for meaningful and informed careers in criminal justice.

CS Courses**CS-501. Change for Each Student. 3.00 Credits.****CS-502. Change for Each Student. 3.00 Credits.****CS-503. Change for Each Student. 3.00 Credits.****CS-504. Change for Each Student. 3.00 Credits.****CU Courses****CU-500. Introduction to the New Media Society. 3.00 Credits.**

This course will provide a foundation to understanding the communication process at various levels of interaction. In addition to covering general theories that have practical applications, it will guide students in analyzing and evaluating strategies to achieve personal and professional goals at the intrapersonal, interpersonal, group, organization and socio/cultural levels. Because many, if not most, communication interactions these days involve some form of electronic and/or digital technology, this course will also explore the current mass media environment and how to be media literate within it.

CU-501. Communication Research.. 3.00 Credits.

This course teaches the concepts of market research, and exposes students to the process of finding, analyzing and using information to make strategic marketing and communication decisions. The course will teach two distinct communication research methods: a) Quantitative (polling, online research, surveys), and b) Qualitative (focus groups, in-depth interviewing, ethnography, observational). Students will give presentations of their research findings and marketing recommendation in class reports.

CU-504. Public Relations. 3.00 Credits.

Public Relations is used to shape the opinions of target audiences. This course involves research and theory in the following PR disciplines: organizational and interpersonal communications, as well as media studies. Students will learn the psychological and sociological processes that drive group behavior, and how those studies are used in the relationship between organizations and the public in which they seek to communicate and persuade. Students will become familiar with the differences between in-house and agency Public Relations, and how the two groups interact.

CU-506. Marketing Communication/Branding. 3.00 Credits.

Branding has become a critical key in a fiercely competitive marketplace. This course explores the link between brand equity and business performance. Students will explore how the realities of a changing media landscape are forcing companies to rethink traditional brand-building practices. Marketing concepts and the principles of analysis will be explained. Other topics will include market segmentation, value proposition, and targeting. Students will engage in critical thinking, case analyses, market research, and present strategic analysis that persuades a business decision maker to invest in their brands.

CU-510. Communication Law Ethics and Policy. 3.00 Credits.

This course examines how courts, legislatures, and regulatory agencies react to constant change in communication technologies - ranging from television and to telecommunications to the Internet. We will focus on specific technological advances to explore the way legal, economic, social, and technological forces shape and are harnessed by legal system. The course will draw on leading communications law cases and FCC and FTC actions.

CU-512. Social Networking & New Media. 3.00 Credits.

This course is part class and part workshop, covering social networking and other trends that are producing complex and subtle changes in business communications. Topics include blogging, YouTube, Second Life and various social networking sites and their emerging role for private businesses, their products, and markets. Attention is paid to current trends in convergence, creativity, collaboration and community as modern media replaces earlier forms of communication and attracts more active --- and interactive ---audiences. The goal of the course is for students to familiarize themselves with various social networking theories, perspectives, sites, tools, and strategies, and to critique, consult on and create social networking plans.

CU-515. Interpersonal Communication. 3.00 Credits.

The course reviews existing and emerging theoretical perspectives relevant to the context of interpersonal communication. Emphasis is on theories of message production and reception, identity management, relationship development, and related processes. Methods of investigation unique to the study of interpersonal interaction are also addressed. Students have the option of taking this course as an elective instead of CU590 Internship 1.

CU-526. Capstone Project and Seminar 1. 3.00 Credits.

This first part of the final course in the Strategic Communication program provides a forum for students to demonstrate their mastery of the principles and best practices of strategic communications. Students identify an organization or issue facing a challenge and act as an independent communications consultant for that organization. The recommended communications strategy is presented in the form of a final written proposal and an oral presentation and defense in front of a review board of faculty and the student's program advisor. Prerequisites: CU-500 CU-501 CU-502 CU-504 CU-506 CU-508; Course Type(s): Capstone.

CU-527. Capstone Project and Seminar 2. 3.00 Credits.

Students finish the second part of their Capstone experience, analyzing data gathered and writing a journal-caliber paper. Prerequisites: CU-500, CU-501, CU-504, CU-506, CU-508 OR GB-511, CU-510, CU-512; Course Type(s): Capstone.

CU-590. Internship I. 3.00 Credits.

The course integrates students' advanced study in a specialty area of communication and public relations with a job experience in the field. Students who are already established in a career, however, also have the option of taking an elective course in the MBA program or the Interpersonal Communication course instead of an internship.

CU-646. Crisis Communications. 3.00 Credits.

The need for effective crisis communication is a valuable asset for an organization, especially now in a 24-hour news cycle and with multiple social media outlets. The focus of the course is to identify, define and prepare students to proactively and effectively respond to crisis situations.

CU-697. Topics in Global Strategic Comm & Pr. 3.00 Credits.

This course offers in-depth readings, case studies, and discussions in current issues in global strategic communication and public relations. Lectures and site visits on a trip to a foreign locale will provide a first-hand look at how strategic communications work in other nations and under different media systems and regulatory environments, providing real-world examples of what they do and the challenges they face. In addition, students will become immersed in a nation's culture through visits to museums and historical sites in addition to meeting media communication professionals. Additional course fee of \$50. Course Type(s): International (Travel).

CY Courses**CY-501. Cyber Assurance and Security. 3.00 Credits.**

This course introduces the fundamental concepts associated with cybersecurity. Students will learn how vulnerabilities within Information Technology can be exploited and how to identify these threats, learn what organizations can do to protect themselves, and to get an understanding as to how business and technology must work in concert to protect an organization's most valuable asset, its data.

CY-502. Information System Security Professional. 3.00 Credits.

This course covers information systems security, including access control, application security, business continuity, cryptography, risk management, legal issues, physical security, telecommunications and network security. This course prepares for the CISSP certification exam and is ideal as a bridge for non technical degree holders into the MS in Cybersecurity.

CY-510. Cyber Security Planning & Risk Analysis. 3.00 Credits.

In this course we will study the concepts in cyber security design and implementation for computer systems (both hardware and software). Security architecture, organization policies, standards, procedures, and security system implementation, including diagnostic testing of databases and networks. Throughout this course, practical skills will also be acquired through a series of interactive risk assessment workshops and case studies.

CY-511. Architecture Essentials. 3.00 Credits.

This course introduces the student to the various types of architecture styles that are associated with supporting systems, application, and networks. Students will become familiar with the reasons why certain architecture styles are selected, and learn each styles strength and weakness as it pertains to cybersecurity. Prerequisites: CY-501.

CY-512. Operating Systems Design & Development. 3.00 Credits.

Organizations depend on computer information systems and technology to operate efficiently. This course first instructs students in current methods of analyzing business situations and systems to model complete and coherent definitions of systems requirements. Next, learning focuses on methods for developing logical and physical designs of these systems. Finally, these designs form the bases of systems development and implementation. The course emphasizes software engineering best practices in creating secure, robust, reliable, and appropriate systems regardless of technology, size, scope, type, and geographic distribution. Prerequisites: CY-501.

CY-513. Information Security Management. 3.00 Credits.

This course introduces students to methods and practices to develop policies and plans for managing personnel, systems and processes related to information security in an organization. This course will first introduce methods to identify information assets, prioritize threats to information assets, and define an information security strategy and architecture. The course will then introduce methods and practices to develop system specific plans against various threats. Most importantly, students will learn about legal and public relations implications of security and privacy issues. Last but not the least, the course will present a disaster recovery plan for recovery of information assets after cybersecurity incidents. Prerequisites: CY-501 AND CY-511.

CY-520. Cyber Security Ethical & Legal Concerns. 3.00 Credits.

In this course we will study Cybersecurity law, policy and compliance, legal rights and liabilities associated with computer security; the application of ethical principles (respect for persons, beneficence, and justice) in cyber security; Information privacy; Rights enforceable by private parties; Liabilities associated by private parties and governments; Legal aspects of records management; Unauthorized computer use; Computer Fraud and Abuse Act; Trade Secrets; Economic Espionage Act; Civil Law Claims; Privacy; Export Control; Constitutional Rights; USA-PATRIOT Act; HIPAA, Gramm-Leach-Bliley; Digital Rights Management.

CY-530. Cryptography. 3.00 Credits.

This course gives a historical introduction to Cryptology, the science of secret codes. It begins with the oldest recorded codes, taken from hieroglyphic engravings, and ends with the encryption schemes used to maintain privacy during Internet credit card transactions. Since secret codes are based on mathematical ideas, each new kind of encryption method leads in this course to the study of new mathematical ideas and results. The first part of the course deals with permutation-based codes: substitution ciphers, transpositional codes, and Vigenere ciphers. In the second part of the course, the subject moves to bit stream encryption methods. These include block cipher schemes such as the Data Encryption Standard (DES) and the Advanced Encryption Standard (AES). Public key encryption is the subject of the final part of the course. We learn the mathematical underpinnings of Diffie-Hellman key exchange, RSA and elliptic curve cryptography. Software packages and tools will also be studied.

CY-540. International Communication & Networking. 3.00 Credits.

In this course we will learn how International Telecommunications Networks are designed, built, and maintained. Within the context of cyber security we will study transmission modes, coding schemes, modulation, multiplexing, data sets, common carriers, tariffs, monitoring, troubleshooting, and network design. As part of the course, we will design an International Telecommunications Network and identify associated risks and vulnerabilities.

CY-550. Mobile Computing and Wireless. 3.00 Credits.

In this course we will study concepts in nomadic computing and mobility; challenges in design and deployment of wireless and ad-hoc networks; MAC issues, routing protocols and mobility management for ad-hoc networks and networks of the future.

CY-595. Non Credit Research Intern Grad Level. 0.00 Credits.

This internship course allows students to acquire practical technical experience through working on specific cybersecurity or blockchain research or teaching projects in consultation with the advisor. The Internship can be an Industry experience co-advised by an Industry advisor and a Faculty Member. Prerequisites: CY-501 OR CY-510 OR CY-530.

CY-598. Exp Learning Intern without CPT. 0.00 Credits.

This internship course allows students to acquire practical technical experience through working on specific cybersecurity or blockchain software or computer systems in consultation with the advisor. After the third trimester of being a student of Cybersecurity. Prerequisites: CY-501 OR CY-510 OR CY-530 Course Type(s): Lab Courses.

CY-610. Ethical Hacking and Penetration Testing. 3.00 Credits.

This course is designed for students to be trained in understanding vulnerabilities in networks, operating systems, database management systems and web servers. Students will learn how exploits are designed by an adversary attacker to penetrate into vulnerable systems. Students will also learn how the hacker can move into a compromised system and remove her/his footprints. The course will introduce students to tools used for network scanning, fingerprinting, and password cracking. Tools include Nmap, Nessus and Kali Linux. Prerequisites: CY-510 OR CY-530 OR CY-540.

CY-620. Malware Analysis and Defense. 3.00 Credits.

In this course, students will study malicious software detection and defenses including tripwire, Bit9, and other techniques such as signature and hash algorithms. Reverse engineering, de-compilers (IDA-pro and Ghidra) and debuggers will be used in the investigation of malware. Viruses, worms, Trojan horses, logic bombs, malicious web server scripts, mobile code issues, and methodologies used by anti-virus/spyware vendors will be studied. Prerequisites: CY-510 OR CY-530 OR CY-540.

CY-622. Advanced Offensive Cyber Security. 3.00 Credits.

This course is designed for students to be trained in Advanced Offensive Security tactics and techniques. This includes the full hacking lifecycle from enumeration/vulnerability discovery, to exploitation, followed by post exploitation activities. Students will learn how to strategically enumerate network devices and exploit various resources, fuzz applications and network protocols to identify bugs/vulnerabilities, execute advanced Manin- the-Middle attacks, along with conducting post exploitation activities on both Linux and Windows machines. Additionally, students will be introduced to Python - including Python fundamentals and development of custom tools/exploits, along with PowerShell usage from a penetration testers perspective. Lastly, students will be introduced to Splunk to provide a better understanding of the network traffic generated as result of our activities, along with how security teams can identify/alert/investigate all resulting traffic. Prerequisites: CY-510 OR CY-530 OR CY-540.

CY-624. Cybersecurity in Healthcare. 3.00 Credits.

This course will establish an avenue of communication and allow open dialogue to demystify the unknown between healthcare and cybersecurity. It will create an engaging concept that will promote the awareness of cybersecurity in healthcare, encompassing both health science and technology. Students will learn cybersecurity technology as it affects the healthcare industry the role of individuals considering a cybersecurity profession in healthcare and will be introduced to the HCISPP certification and its significance in the workforce. The course will bridge both healthcare and technology through learning the core concepts of healthcare informatics and security of healthcare information systems, understanding HIPAA, conscious reading and comprehension of current healthcare cybersecurity journals, knowledge of government organizations that develop and promote policy and guidelines to help healthcare companies protect their critical information technology infrastructures, and through student dialogues, cognizance of each person's role in the protection of healthcare information against unauthorized access to healthcare data. Prerequisites: CY-502 OR CY-510 OR CY-530.

CY-625. Advances in Management of Cyber Security. 3.00 Credits.

This course is designed for the graduate level cyber security and business student who wants to deepen the knowledge of the management aspects of cyber security. This course takes a "view from the top" and presents exactly what future managers need to know about cyber security. Harvard Business cyber cases and a cyberattack simulation are used in this course. Hybrid or Online course. Prerequisites: CY-510 OR EQUIVALENCES APPROVED BY INSTRUCTOR.

CY-626. Cyber Risk Management and Insurance. 3.00 Credits.

This course deals with the role of the risk manager advising on business interruption arising from failures of management information and telecommunications systems. It addresses the complexity of technology, interaction of the web and back office, and security failures. It covers the use of cyber insurance and risk transfer strategies to protect assets, people, and business operations. Course Type(s): Online Course.

CY-630. Disaster Recovery. 3.00 Credits.

In this course, students will learn how to identify cyber security vulnerabilities and implement appropriate countermeasures to mitigate risks. Techniques will be taught for creating a continuity plan and methodology for building an infrastructure that supports its effective implementation. Throughout this course, skills in disaster recovery planning will be acquired through a series of interactive workshops and case studies. Students will design and develop a disaster recovery plan. Prerequisites: CY-510 OR CY-530 OR CY-540.

CY-635. Advanced Research in Cyber Security. 3.00 Credits.

This is an advanced research course in cyber security topics / subject areas. Students work with a faculty member on a research topic or area of special interest, for example: bitcoin mining, blockchain technology, malware analysis, mobile & wireless, systems defense, penetration testing, disaster recovery in the cloud, or cyber security CSO-level risk management / security architecture. This course permits the student to explore a specific issue or topic in cyber security or to work independently, as a researcher, to develop a specific skill competency under the direction of a faculty mentor. This course could include a paid or non-paid internship in the University Cyber Security Center or a service learning component. Prerequisites: CY-510 OR CY-530 OR CY-540.

CY-637. Info Sys Security Certification Prep - 1. 3.00 Credits.

This course covers information security in depth, including business continuity, cryptography, risk management, legal issues, physical security, telecommunications, and network security. This course gives an overview of the field of Information Security or Cybersecurity. It is a foundation course for the master's degree in Cybersecurity. This is first of the two courses critical to prepare for CISSP certification. This class will build upon the knowledge acquired through the prerequisite courses and prepare students for the Certified Information Systems Security Professional (CISSP) credential examination. Students must take CY638 course to fully prepare them for the CISSP certification test. CISSP is essential for high-level information security professionals and important certification credential to open the door to high level jobs. Fees associated with the CISSP Exam is the responsibility of the student. The course fees do not include the fee for the exam. Prerequisites: CY-510, CY-610 AND EITHER CY-540 OR CY-550.

CY-638. CISSP Preparation-2. 3.00 Credits.

This course covers information security in depth, including business continuity, cryptography, risk management, legal issues, physical security, telecommunications, and network security. This course gives an overview of the field of Information Security or Cybersecurity. It is a foundation course for the master's degree in Cybersecurity. This is the second of the two courses critical to prepare for CISSP certification. This course requires the students to be well versed with the concepts taught in CY510, CY 630, CY 637, and CY 540 or CY 550. The prerequisite courses will give students a strong grasp on the fundamentals of cyber security concepts, risk management (i.e., assessing risks, responding to risks, monitoring risks), strong data communications foundations, networking protocols, wireless LAN technology, and virtual networks. This class will build upon the knowledge acquired through the prerequisite courses, particularly CY-637, and prepare students for the Certified Information Systems Security Professional (CISSP) credential examination by utilizing over 1,000 CISSP-relevant questions. Students must take a CY-637 course to fully prepare them for CY-638 and the CISSP certification test. CISSP is essential for high-level information security professionals and important certification credential to open the door to high level jobs. Prerequisites: CY-637.

CY-640. Cybercrime and Digital Forensics. 3.00 Credits.

The topics covered in this course include cyber-crime investigation, digital forensics, forensic duplication and analysis, network surveillance, intrusion detection and response, incident response, anti-forensics techniques, anonymity and pseudonymity, cyber law, computer security policies and guidelines, court report writing and presentations, and case studies. The course will include lectures and demonstrations and is designed around a virtual lab environment that provides for robust and realistic hands-on experience in working with a range of information assurance topics. Students will be assigned projects to apply information security practices and technologies to solve real-world cyber security problems. Prerequisites: CY-510 OR CY-530 OR CY-540; Course Type(s): Hybrid Course.

CY-650. Cyber Security Capstone. 3.00 Credits.

This course is the mandatory capstone experience for graduate students in the Master's degree in Cyber Security and provides students with the opportunity to carry out in depth research on a specific topic in cyber security. The student's project will reflect the integration and application of the cyber security knowledge gained over the course of the program. Note: CY-650 cannot be substituted and must be taken a trimester or two before graduation. Prerequisites: CY-530 OR CY-620 OR CY-622 Course Type(s): Capstone.

DISS Courses

DISS-890. Dissertation Defense Pending. 0.00 Credits.

DS Courses**DS-501. Comm. for Data Science Practitioners. 0.00 Credits.**

Communication for Data Science Practitioners is intended to provide support and tailored instruction specific to multilingual graduate students in the Data Science program who speak a language other than English as a first language (L1). The course is designed to provide an intensive and focused hybrid experience for students that will effectively prepare students for discipline-specific graduate coursework delivered in English. DS-501 offers direct English-language vocabulary and advanced grammar instruction, but combines ESOL course content with a deep focus on explicitly preparing students for the tasks they must complete as both graduate students and practitioners in their field. Coursework is steeped in a content & language integrated learning approach, and the course is meant to be paired with DS-520. DS-501 is a hybrid course, with both virtual and in-person course meetings. The course is designed as a 0-credit experience, does not contribute towards visa eligibility, and is delivered as a supportive add-on for multilingual learners at the graduate level. This course is graded on a pass/fail basis, but student grades will appear on their transcripts.

DS-510. Intro to Data Science and AI. 3.00 Credits.

Data Science is a set of fundamental principles that guide the extraction of valuable information and knowledge from data. This course provides an overview and develops student's understanding of the data science and analytics landscape in the context of business examples and other emerging fields. It also provides students with an understanding of the most common methods used in data science. Topics covered include introduction to predictive modeling, data visualization, probability distributions, Bayes' theorem, statistical inference, clustering analysis, decision analytic thinking, data and business strategy, cloud storage and big data analytics.

DS-520. Data Analysis and Decision Modeling. 3.00 Credits.

This course will provide students with an understanding of common statistical techniques and methods used to analyze data in business. Topics covered include probability, sampling, estimation, hypothesis testing, linear regression, multivariate regression, logistic regression, analysis of variance, categorical data analysis, Bootstrap, permutation tests and nonparametric statistics. Students will learn to apply statistical techniques to the processing and interpretation of data from various industries and disciplines.

DS-530. Data Management Systems. 3.00 Credits.

This course explores foundational concepts of relational databases, data warehousing, distributed data management, structured and unstructured data, NoSQL data stores and graph databases. Various database concepts are discussed including Extract-Transform-Load, cloud-based online analytical processing (OLAP), data warehouse architecture, development and planning, physical database design, data pipelines, metadata, data provenance, trust and reuse. Students will develop practical experience using SQL. Prerequisites: DS-510 AND DS-520.

DS-533. Enterprise Design Thinking. 3.00 Credits.

Students will learn a robust framework for applying design thinking techniques to key issues facing organizations across industries. Key skills developed include shared goal setting and decision-making, processes for continuous innovation, and the alignment of multi-disciplinary teams around the real needs and experiences of users and customers. Through instruction, experiential learning and an industry-recognized methodology, students will gain practice in the successful application of design thinking techniques to address common business problems.

DS-540. Statistical Programming. 3.00 Credits.

The course gives an introduction to SAS or R programming for statistical analyses and managing, analyzing and visualizing data. Topics include numeric and non-numeric values, arithmetic and assignment operations, arrays and data frames, special values, classes and coercion. Students will learn to write functions, read/write files, use exceptions, measure execution times, perform sampling and confidence analyses, plot a linear regression. Students will explore tools for statistical simulation, large data analysis and data visualization, including interactive 3D plots.

DS-542. Python in Data Science. 3.00 Credits.

The course gives an introduction to Python programming for statistical analyses and managing, analyzing and visualizing data. Topics include numeric and non-numeric values, arithmetic and assignment operations, arrays and data frames, special values, classes and coercion. Students will learn to write functions, read/write files, use exceptions, measure execution times, perform sampling and confidence analyses, plot a linear regression. Students will explore tools for statistical simulation, large data analysis and data visualization, including interactive 3D plots. Prerequisites: DS-510, DS-520.

DS-560. Biomedical Data Analytics. 3.00 Credits.

An introduction to the biology of modern genomics and some of the tools that are used to measure it. This will include basic molecular biology, the genome, DNA and RNA sequences, and the central dogma. Students will learn techniques to analyze data from sequencing experiments. The course covers data analytic techniques to understand and analyze the biomedical data available to bioscientists and the medical profession. Prerequisites: CS-241, BI-183.

DS-570. Healthcare Data Analytics. 3.00 Credits.

An introduction to the healthcare environment and the various sources of healthcare data. How to import, clean, and refine data from these sources. Students will learn the techniques to diagnose diseases, predict prognosis and evaluate treatments. The course covers data analytic techniques to understand and analyze healthcare data. Prerequisites: CS-241, BI-183.

DS-589. Topics in Management. 3.00 Credits.

Topics vary by term. Example topics may include but are not be limited to the following: advanced project management techniques; non-profit, philanthropic, and/or faith-based management; coding fundamentals for entrepreneurs, managers, and executives; and mindfulness in the workplace.

DS-590. Data Structures and Algorithms I. 3.00 Credits.

This course explores essential topics for programmers and data scientists including the design of and implementation and analysis of efficient algorithms and their performance. Essential data structures are also reviewed, as well as searching and sorting algorithms.

DS-595. Applied Work Experience Cpt-Traditional. 1.00 Credit.

The Applied Work Experience/Curricular Practical Training course is an academic component that accompanies students' industry work experience and Curricular Practical Training. Students whose current work role has been approved by the Program Director as directly related to their program of study should register for this non-credit course each term during which they are working. Traditional Program students are eligible after their third trimester.

DS-596. Graduate Research Assistantship. 0.00 Credits.

Graduate Research Assistantship is a robust learning experience for pre-selected students, involving scholarly research under faculty supervision. These research projects involve the development of theoretical analyses and models, gathering and analysis of data, and special projects that require substantive research. The ultimate goals for this research is academic conference presentation, publication in peer-reviewed journals and research reports, and more broadly contributing to thought leadership of the Data Science Institute.

DS-597. Applied Research Experience. 0.00 Credits.

The Applied Research Experience is a learning experience that gives Data Science Institute students the opportunity to conduct real-world consulting and research projects with businesses and organizations, that build upon the science, theory, and application of data and analysis. This non-credit course fulfills the business experience requirement for the program for those students who do not have a current work role that fulfills the requirement. For Traditional/Full-time programs. Prerequisites: DS-510 DS-520 DS-530 DS-542 DS-600 DS-620:.

DS-598. Applied Industry Experience. 0.00 Credits.

The Applied Industry Experience course is an academic component that accompanies students' industry experience in a full time role or internship. Students whose current industry role has been approved by the Academic Program Director as directly related to their program of study can register for this non-credit course each term during which they are working. Prerequisites: DS-510 DS-520 DS-530 DS-542 DS-600 DS-620.

DS-599. Research Practicum. 0.00 Credits.

The Research Practicum is a learning experience that gives the students the opportunity to conduct real-world consulting projects with businesses that build upon the science, research and application of data and analysis, extending to strategic planning and identifying relevant tactics to carry out strategies.

DS-600. Data Mining. 3.00 Credits.

Data mining refers to a set of techniques that have been designed to efficiently find important information or knowledge in large amounts of data. This course will provide students with understanding of the industry standard data mining methodologies, and with the ability of extracting information from a data set and transforming it into an understandable structure for further use. Topics covered include decision trees, classification, predictive modeling, association analysis, statistical modeling, Bayesian classification, anomaly detection and visualization. The course will be complemented with hands-on experience of using advanced data mining software to solve realistic problems based on real-world data. Prerequisites: DS-510, DS-520.

DS-605. Financial Computing and Analytics. 3.00 Credits.

This course covers the process of collecting data from a variety of sources and preparing it to allow organizations to make data-driven decisions. It builds upon the relationships within data collected electronically and applies quantitative techniques to create predictive spreadsheet models for financial decision making. Prerequisites: DS-510, DS-520.

DS-610. Big Data Analytics. 3.00 Credits.

Big Data (Structured, semi-structured, & unstructured) refers to large datasets that are challenging to store, search, share, visualize, and analyze. Gathering and analyzing these large data sets are quickly becoming a key basis of competition. This course explores several key technologies used in acquiring, organizing, storing, and analyzing big data. Topics covered include Hadoop, unstructured data concepts (key-value), Map Reduce technology, related tools that provide SQL-like access to unstructured data: Pig and Hive, NoSQL storage solutions like HBase, Cassandra, and Oracle NoSQL and analytics for big data. A part of the course is devoted to public Cloud as a resource for big data analytics. The objective of the course is for students to gain the ability to employ the latest tools, technologies and techniques required to analyze, debug, iterate and optimize the analysis to infer actionable insights from Big Data. Prerequisites: DS-510, DS-520, DS-530.

DS-620. Data Visualization. 3.00 Credits.

Visualization concerns the graphical depiction of data and information in order to communicate its contents and reveal patterns inherent in the data. It is sometimes referred to as visual data mining, or visual analytics. Data visualization has become a rapidly evolving science. This course explores the underlying theory and practical concepts in creating visual representations of large amounts of data. Topics covered include data representation, information visualization, real-time visualization, visualization toolkits including Tableau and their applications to diverse data rich contexts. At the end of the course, the student will be able to present meaningful information in the most compelling and consumable fashion. Prerequisites: DS-510, DS-520.

DS-621. Business Analytics With Power BI. 3.00 Credits.

This course will focus on building dynamic dashboard and applications in order to understand and interpret the data by using PowerBI. Course will also focus on visualization and business intelligence techniques to interpret the data as step towards Machine Learning. Prerequisites: DS-510 DS-520. Prerequisites: DS-510, DS-520.

DS-630. Machine Learning. 3.00 Credits.

Machine learning is the field of study that gives computers the ability to learn from experience without being explicitly programmed. This course covers the theory and practical algorithms for machine learning from a variety of perspectives. Topics include decision tree learning, parametric and non-parametric learning, Support Vector Machines, statistical learning methods, unsupervised learning, reinforcement learning and the Bootstrap method. Students will have an opportunity to experiment with machine learning techniques and apply them to solve a selected problem in the context of a term project. The course will also draw from numerous case studies and applications, so that students learn how to apply learning algorithms to build machine intelligence. Prerequisites: DS-510, DS-520, DS-530, DS-542.

DS-631. Deep Learning Algorithms. 3.00 Credits.

Machine learning is the science (and art) of programming computers so they learn from data. It is the field of study that gives computers the ability to learn from experience without being explicitly programmed. This course covers the theory and practical algorithms for neural networks and deep learning. Major topics neural networks, convolutional neural networks, recurrent neural networks, reinforcement learning, and implementation of deep learning in TensorFlow. Students will have an opportunity to experiment with advanced machine learning techniques (especially using Python) and apply them to solve selected problems in the context of a term project. Prerequisites: DS-630.

DS-637. Luster Analysis With Machine Learning. 3.00 Credits.

In this course, students will utilize machine learning techniques to generate business intelligence through the discovery of patterns and relationships in data. In particular, students will apply cluster analysis, or clustering this method of unsupervised learning and technique for statistical data analysis groups objects based on characteristics, such as high intra-cluster or low inter-cluster similarities. Pre-requisites: DS-542 and DS-630 Prerequisites: DS-542 DS-630.

DS-640. Predictive Analytic & Financial Modeling. 3.00 Credits.

Predictive analytics is an area of data mining that deals with extracting information from data and using it to predict trends and behavior patterns. This course will provide predictive analytics foundational theory and methodologies as well as teach students how to build predictive models for practical financial and business applications and verify model effectiveness. Topics covered are linear modeling and regression, nonlinear modeling, time series analysis and forecasting, segmentation and tree models, support vector machine, clustering, neural networks and association rules. Prerequisites: DS-510, DS-520.

DS-642. Advance Python in Data Science. 3.00 Credits.

This course explores essential advanced Python topics for programmers & data scientists including working with databases using Python, writing web services, exploring unit-testing frameworks, understanding multithreading concepts in Python, performing advanced statistical analysis using Python libraries and learning industry standards for writing and organizing large Python programs. Prerequisites: DS-510, DS-520, DS-542.

DS-650. Data Ethics and Artificial Intelligence. 3.00 Credits.

The increasing use of big data and artificial intelligence in our society raises legal and ethical questions. This course explores the issues of privacy, data protection, non-discrimination, equality of opportunities and due process in the context of data-rich environments. It analyzes ethical and intellectual property issues related to data analytics with the use of artificial intelligence. Students will also learn the legal obligations in collecting, sharing and using data, as well as the impact of algorithmic profiling, industrial personalization and government. This course also provides an understanding of the important capabilities of business with the technologies that enable them and the management of artificial intelligence. Prerequisites: DS-510, DS-520. Prerequisites: DS-510, DS-520.

DS-660. Business Analytics. 3.00 Credits.

Business analytics is the process of generating and delivering the information acquired that enables and supports an improved and timely decision process. The aim of this course is to provide the student with an understanding of a broad range of decision analysis techniques and tools and facilitate the application of these methodologies to analyze real-world business problems and arrive at a rational solution. Topics covered include foundations of business analytics, descriptive analytics, predictive analytics, prescriptive analytics, and the use of computer software for statistical applications. The course work will provide case studies in Business Analytics and present real applications of business analytics. Students will work in groups to develop analytic solutions to these problems. Prerequisites: DS-510, DS-520 OR MS-500:.

DS-665. Advanced Machine Learning. 3.00 Credits.

Machine learning is the science (and art) of programming computers so they learn from data. It is the field of study that gives computers the ability to learn from experience without being explicitly programmed. This course covers the theory and practical algorithms for neural networks and deep learning. Major topics neural networks, convolutional neural networks, recurrent neural networks, reinforcement learning, and implementation of deep learning in TensorFlow. Students will have an opportunity to experiment with advanced machine learning techniques (especially using Python) and apply them to solve selected problems in the context of a term project. Prerequisites: DS-510, DS-520 AND DS-630.

DS-670. Capstone: Big Data & Data Science. 3.00 Credits.

This course is structured as a capstone research practicum where students have an opportunity to apply the knowledge acquired in data science to interdisciplinary problems from a variety of industry sectors. Students work in teams to define and carry out an analytics project from data collection, processing and modeling to designing the best method for solving the problem. The problems and datasets used in this practicum will be selected from real world industry or government settings. At the end of the class students will write a report that presents their project, the approach and techniques used to design a solution, followed by results and conclusion. Students are encouraged to present their capstone research at conferences. Prerequisites: DS-620, DS-630; Course Type(s): Capstone.

DS-671. Capstone: Business Analytics. 3.00 Credits.

This course is structured as a capstone research practicum where students have an opportunity to apply the knowledge acquired in data science to interdisciplinary problems from a variety of industry sectors. Students work in teams to define and carry out an analytics project from data collection, processing and modeling to designing the best method for solving the problem. The problems and datasets used in this practicum will be selected from real world industry or government settings. At the end of the class students will write a report that presents their project, the approach and techniques used to design a solution, followed by results and conclusion. Students are encouraged to present their capstone research at conferences. Prerequisites: DS-520, DS-620 Prerequisites: DS-520, DS-620; Course Type(s): Capstone.

DS-680. Marketing Analytics & Operation Research. 3.00 Credits.

Organizations need to interpret data about consumer choices, their browsing and buying patterns and to match supply with demand in various business settings. This course examines the best practices for using data to prescribe more effective business strategies. Topics covered include marketing resource allocation, metrics for measuring brand assets, customer lifetime value, and using data analytics to evaluate and optimize marketing campaigns. Students learn how data is used to describe, explain, and predict customer behavior, and meet customer needs. Students also learn to model future demand uncertainties, predict the outcomes of competing policy choices and take optimal operation decisions in high and low risk scenarios. Prerequisites: DS-510, DS-520.

DS-684. Data Engineering Using Cloud Computing. 3.00 Credits.

This course presents the fundamentals of cloud computing with a focus on data and analytics. Students will gain insights on how to analyze large datasets in the cloud using Microsoft Azure platform, from basic cloud tools to the big data distributed technologies like Spark, SQL and Python. With the exponential growth in data, organizations rely on the robust computing, storage, and analytical power of Azure, AWS and other cloud tools to scale, stream, predict, create visualizations and make data informed decisions. Course topics include: overview of cloud computing, cloud systems, parallel processing in the cloud, distributed storage systems, data visualization and creating dashboards. Prerequisites: DS-542.

DS-687. Artificial Intelligence Fundamentals. 3.00 Credits.

This comprehensive course provides an introduction to Artificial Intelligence concepts. At the end of this class students will be able to describe what is AI, its applications, use cases, and how it is transforming our lives. Students will be able to explain and understand how the terms like machine learning, deep learning, and neural networks work. Hands on experience will be practiced with IBM Watson platform by using computer vision techniques and develop custom image classification models and deploy them to the Cloud. The class will also tackle the UpToDate topics of ethical concerns surrounding AI. Prerequisites: DS-510, DS-520.

DS-688. Natural Language Processing With Ai. 3.00 Credits.

This course explores the fundamental concepts of NLP and its role in current and emerging technologies. Students will gain a thorough understanding of modern neural network algorithms for the processing of linguistic information. By mastering cutting-edge approaches, they will gain the skills to move from word representation and syntactic processing to designing and implementing complex deep learning models and other language understanding tasks. Prerequisites: DS-510, DS-520, DS-530, DS-542.

DS-690. Data Science and Health. 3.00 Credits.

Students will be introduced to the types of data commonly used in public health, biomedical and clinical settings. Students will acquire the knowledge and skills to use these data for understanding and improving the quality of health outcomes. Through lectures and class data analysis projects, students will explore, analyze and create graphical visualization of data from a variety of healthcare sources. Students will also be exposed to selective topics on real time analytics, clinical informatics, and machine learning for biomedical applications. Prerequisites: DS-510, DS-520.

DS-698. Exploring Industry & Technology Overseas. 3.00 Credits.

This travel course is tailored specifically for students in Data Science, Business Analytics, or MBA Business Analytics. Through instruction, industry visits, and cultural excursions students will gain a comprehensive knowledge of data-driven decision-making processes and business analytics practices within Germany and Belgium. Course Type(s): International (Travel).

DS-700. Independent Study in Data Science. 3.00 Credits.

In this course, students will work with a faculty member to explore a topic in depth or conduct independent research. Requirements for completion include submission of a research report. Course Type(s): Independent Study.

DS-702. Practicum in Data Science. 3.00 Credits.

Practicum is a learning experience that gives the students the opportunity to conduct real-world consulting projects with businesses that build upon the science, research and application of data and analysis, extending to strategic planning and identifying relevant tactics to carry out strategies. Prerequisites: DS-630, DS-631.

DS-703. Practicum in Statistics. 3.00 Credits.

Practicum is a teaching experience for doctoral students that gives the students the opportunity to conduct real-world consulting projects with businesses that build upon the large datasets, by working on statistical correlations while practicing teaching. Prerequisites: DS-520, DS-600.

DS-770. Topics in Data Science. 3.00 Credits.

Students will explore emerging, innovative, alternative and/or advanced subject matter in the field of data science. Topics vary by term.

DS-780. Practicum in Teaching Data Science. 3.00 Credits.

Recognizing that teaching data science at the college level requires more than just subject matter expertise, students in this course will devise, implement, assess, revise and reevaluate undergraduate and/or graduate data science lessons. Pre-service professors will develop and present student-centered lessons that engage classroom or virtual learners interactively and collaboratively by utilizing appropriate teaching and learning techniques and technologies. Classroom coaching and constructive feedback from mentors and peers will help students improve their teaching. Current instructors in data science and/or related disciplines are encouraged to enroll for professional development purposes.

DS-790. Practicum in Teaching Statistics. 3.00 Credits.

Recognizing that teaching statistical analysis and probability at the college level requires more than just subject matter expertise, students in this course will devise, implement, assess, revise and reevaluate undergraduate and/or graduate statistics lessons. Pre-service professors will develop and present student-centered lessons that engage classroom or virtual learners interactively and collaboratively by utilizing appropriate teaching and learning techniques and technologies. Classroom coaching and constructive feedback from mentors and peers will help students improve their teaching. Current instructors in statistics and/or related disciplines are encouraged to enroll for professional development purposes.

DS-800. Forecasting Methods Business Decisions. 3.00 Credits.

This course will prepare leaders for different forecasting methods and analytical tool to get them prepared for the business decisions. Forecasting methods will be evaluated according to the conditions such as under uncertainty, under risk and so on. Prerequisites: DS-801.

DS-801. Advanced Data Structures & Algorithms. 3.00 Credits.

This course explores core data structures and algorithms used in everyday applications, the trade-offs involved with choosing each data structure, along with traversal, retrieval, and update algorithms. It will be covered linked lists, stacks, queues, binary trees, and hash tables. Prerequisites: DS-630.

DS-802. Advanced Natural Language Processing. 3.00 Credits.

Students will explore the fundamental concepts of NLP and its role in current and emerging technologies. Students will develop a comprehensive working knowledge of modern neural network algorithms in order to process of linguistic information. By mastering cutting-edge approaches, students will gain the skills to advance from word representation and syntactic processing to designing and implementing complex deep learning models and other language understanding tasks. Prerequisites: DS-510 AND DS-520.

DS-803. Optimization Computational Lin. Algebra. 3.00 Credits.

In this course, students will learn about the theory and practical aspects of many fundamental tools from matrix computations, numerical linear algebra and optimization. In addition to classical applications, most examples will particularly focus on modern large-scale machine learning problems. Implementations will be done using MATLAB/Python. Prerequisites: DS-510 AND DS-520.

DS-804. Advanced Optimization. 3.00 Credits.

The course covers mathematical programming and combinatorial optimization from the perspective of convex optimization, which is a central tool for solving large-scale problems. The course is dedicated to the theory of convex optimization and its direct applications. Besides, it focuses on advanced techniques in combinatorial optimization. Prerequisites: DS-803.

DS-805. Research Seminar in Forecasting. 3.00 Credits.

In a research seminar format, students and faculty develop research proposals, analyses, and reporting in the domain of Forecasting. Topics of special interest vary from term to term. Prerequisites: DS-510, DS-520.

DS-806. Research Seminar in Unstructured Data. 3.00 Credits.

In a research seminar format, students will work with faculty to develop research proposals, perform analyses, and create reports, culminating in presentations. Topics will emphasize Unstructured Data analysis, and may vary by term. Prerequisites: DS-510, DS-520.

DS-860. Ph.D. Qualifying Exam. 2.00 Credits.

To qualify for the Ph.D. qualifying examination, students must achieve a final grade of B or higher in each of the core courses required for the exam. This ensures that candidates possess the foundational knowledge necessary to succeed in advanced research and practice. Students are expected to complete this requirement by the end of their fourth trimester. Students who do not pass the qualifying examination will be placed on academic probation and must fulfill this requirement by the end of their sixth trimester to remain in good standing within the program. Prerequisites: DS-800:.

DS-870. Dissertation Proposal. 2.00 Credits.

The course gives an introduction to Python programming for statistical analyses and managing, analyzing and visualizing data. Topics include numeric and non-numeric values, arithmetic and assignment operations, arrays and data frames, special values, classes and coercion. Students will learn to write functions, read/write files, use exceptions, measure execution times, perform sampling and confidence analyses, plot a linear regression. Students will explore tools for statistical simulation, large data analysis and data visualization, including interactive 3D plots. Prerequisites: DS-800:.

DS-871. Dissertation Seminar I. 3.00 Credits.

This course is the first in a series of four courses designed to guide students through the process of conducting a data science research project and writing a dissertation. In this course, students will focus on laying the foundation for their research by developing Chapters 1 and 2 of their dissertation. They will learn about the essential elements of a research proposal, including problem formulation, dataset research (if needed), literature review, research questions, and hypotheses. Additionally, students will begin collecting and analyzing data related to their research topic. Emphasis will be placed on individual student work with their Mentor and Dissertation Committee members. Prerequisites: DS-801, DS-802, DS-803, DS-804, DS-805, DS-806.

DS-872. IRB Approval and Data Collection. 3.00 Credits.

Dissertation Seminar 2 is the second part of a four course series designed to guide students through the process of conducting a data science research project and writing a dissertation. In this course, students will delve into the critical aspects of obtaining Institutional Review Board (IRB) approval for their research and initiating the data collection process. They will gain a comprehensive understanding of ethical considerations, data collection methods, and data management. Emphasis will be placed on individual student work with their Mentor and Dissertation Committee members. Prerequisites: DS-871.

DS-873. Data Analysis and Interpretation. 3.00 Credits.

Dissertation Seminar III is the third part of a four-course series designed to guide students through the process of conducting a data science research project and writing a dissertation. In this course, students will focus on the critical phases of data analysis, interpretation, and drawing meaningful conclusions from their research data. They will learn various data analysis techniques, visualization methods, and how to effectively communicate their findings. Prerequisites: DS-872.

DS-874. Finalization and Dissertation Defense. 3.00 Credits.

Dissertation Seminar IV is the final part of a four-course series designed to guide students through the process of conducting a data science research project and writing a dissertation. In this course, students will focus on finalizing their dissertation, including editing and polishing, preparing for the defense, and taking the necessary steps to successfully complete their doctoral journey. Students must maintain continuous enrollment in this course until they have successfully completed and defended their dissertation. Students must have their dissertation proposal approved by the Doctoral Committee for Research Involving Human Subjects prior to registering for this course. Prerequisites: DS-873.

EC Courses

EC-501. Advanced Macroeconomics. 3.00 Credits.

The primary objective of macroeconomic analysis is to explain the phenomena of aggregate movements in output, employment, and the price level. In the course of the semester, students will supplement theoretical models with case studies to examine the intellectual influences that have shaped the development of macroeconomic theory and policy. The course will examine the main theoretical and methodological differences among competing models, the empirical evidence supporting each model, and particular policy instruments for achieving macroeconomic stability.

EC-502. Advanced Microeconomics. 3.00 Credits.

This class covers the workings of supply and demand in the determination of price, resource allocation, and distribution. It analyzes how individuals make decisions regarding consumption (including intertemporal consumption), savings, and employment. It looks at how firms make decisions regarding production output, pricing, and investment in different markets such as perfect competition, monopolistic competition, oligopoly, and monopoly. Game theory will be employed to shed light on how individuals and firms can make strategic decisions by considering the possible moves of other parties. It also uses the concepts of equity, efficiency, and market failure to analyze and evaluate government policies such as price floors and ceilings, tax policy, and environmental policy.

ED Courses

ED-501. Change for Each Student. 3.00 Credits.

ED-502. Change for Each Student. 3.00 Credits.

ED-503. Change for Each Student. 3.00 Credits.

ED-504. Change for Each Student. 3.00 Credits.

FN Courses

FN-503. History of Financial Economic Thought. 3.00 Credits.

This course covers the major ideas in the history of financial economic thought. Students will be exposed to the seminal contributions made by giants in this field representing different traditions. Special attention will be paid to how these individuals laid the intellectual foundation for the creation and critical assessment of financial models and structures.

FN-504. Adv Econometrics and Financial Modeling. 3.00 Credits.

This course covers simple linear regression and multiple linear and nonlinear regression, including regressions with dummy variables and interaction variables. It also covers regression with a binary dependent variable, panel data, instrumental variables, and time series models. It will build on these tools by showing students how to apply them to financial modeling. The course will challenge students to use econometric software to estimate and interpret regressions with real world financial data.

FN-505. Global Money Credit and Banking. 3.00 Credits.

This course will focus on the global dimensions of financial markets. Of particular interest will be comparative central banking and the interaction of different financial systems and institutions. In doing so, students will examine the historical evolution of financial and banking concerns in different countries and how they operate in the modern global economy with its interconnected financial markets.

FN-506. Advanced Corporate Finance. 3.00 Credits.

This course provides the framework, concepts, and tools for analyzing modern corporate financial decisions based upon the fundamental principles of modern financial theory. The course will cover topics including discounted cash flow techniques, corporate capital budgeting and valuation, and investment decisions, supplemented by case studies. It will analyze how these issues influence short- and long-term financial policies, an appropriate capital structure, the cost of capital, and dividend policy.

FN-512. Adv Investment Analysis & Portfolio Mgmt. 3.00 Credits.

This course provides an overview of security analysis and portfolio management. It introduces the advanced concepts needed for analysis of individual securities such as stocks and bonds and groups of securities such as mutual funds. In addition to pricing of securities, the course will cover strategies for combining securities into portfolios and the management and evaluation of portfolios as market conditions change. The course will explore how statistical and mathematical tools can be used effectively to analyze many aspects of asset pricing and portfolio management.

FN-514. Financial Engineering and Derivatives. 3.00 Credits.

This course will introduce students to the pricing of derivatives securities such as forwards, futures, options, convertible bonds, swaps, credit derivatives, and asset-backed securities. It will also consider the role that some of these asset classes played during the latest financial crisis. The course will also cover financial engineering-the combination of derivatives and other assets to achieve hedging or investment return benefits.

FN-516. Financial Ethics. 3.00 Credits.

This course uses ethical theories to examine past and contemporary questions in finance involving ethical issues, with an explicit focus given to situations that present conflicts between/among parties. Through the use of case studies, students will become capable of investigating issues of value in a reasoned and coherent manner and how this has come to shape the rules and institutions that structure financial markets.

FN-524. International Finance. 3.00 Credits.

This course provides students with advanced training on the topics of foreign exchange markets, the international monetary system, and the balance of payments. It then examines exchange rate determination, currency derivatives, hedging against risk, and related concerns. Particular attention is paid to factors that influence how international investment decisions, including direct foreign investment, are formed. Considerable use of case studies and empirical evidence will be made.

FN-554. Emerging Markets. 3.00 Credits.

This course covers the essential elements of investing in emerging markets, including how such markets developed, how their processes of intermediation differ from developed country markets and what limitations exist, and what the dominant methods for arranging development finance are. The focus of this course is to provide a comprehensive understanding of why market conditions may differ from those in the mature economies. In doing so, certain policy issues will be discussed concerning the evolution of emerging market macroeconomic development and how investing strategies are informed by stakeholders in the Global North and the Global South.

FN-595. Mentored Research and Master's Thesis. 3.00 Credits.

In this course, students will undertake an in-depth mentored research project that culminates in the completion of a Master's length thesis.

FN-596. Zero Credit Internship. 0.00 Credits.

This non-credit internship course allows students to acquire practical experience in the field of finance in a role that is related to the MS Finance degree program and with approval from the Program Director. This course may be recommended for students seeking Curricular Practical Training (CPT) while pursuing their Master's degree.

FN-597. Industry Internship in Finance. 3.00 Credits.

This course introduces the student to working experience within the financial industry. Upon successful completion of this course, students should be able to identify the role of supply, demand, and competition in a market economy, understand the role of public policy options to scientifically assess the likelihood of improving our well being (especially fiscal policy, monetary policy, and central banking) in a global economy, and apply economic theory to a range of contemporary economic issues while developing students abilities' to effectively communicate their analysis.

GB Courses**GB-500. Executive Communication. 3.00 Credits.**

Mastery of effective written communication is essential for success in the business world. In this course, students will learn to analyze and produce texts in a variety of formats and genres based on their particular professional goals.

GB-503. Statistics for Managers. 3.00 Credits.

This course covers concepts of probability and statistics needed by managers to analyze and interpret numerical data in uncertain environments. It includes hypothesis testing, regression and correlation analysis and analysis of variance. Concepts are discussed in a framework of real world applications.

GB-505. Internet of Things for Managers. 3.00 Credits.

Students will learn how to extract real-world data from sensors in device, integrate them to services in the cloud, and gather valuable insights to improve business operations and enable innovative industry business models, using analytics and artificial intelligence.

GB-511. Management & Human Behavior. 3.00 Credits.

This course covers planning, organizing, staffing, directing, and the management of change in a modern organization. It examines decision making and problem solving in pursuit of organizational goals. It addresses human behavior in the areas of motivation, communication, and interpersonal relations.

GB-513. Marketing Management. 3.00 Credits.

This course examines the field of marketing and the dynamics of matching goods and services with customer and consumer needs. Topics include strategic planning, marketing research, and buyer behavior of businesses and consumers. The course covers the marketing functions of product mix and branding, price determination, channels of distribution and promotion and advertising.

GB-517. Business Ethics and Sustainability. 3.00 Credits.

This course provides a framework for students to recognize ethical dilemmas and analyze the business implications in terms of consequences, autonomy, rights, virtues and equality. Extensive use is made case studies and current events using presentation, discussion and debate delivery methods.

GB-519. Real Estate Legal Environment. 3.00 Credits.

This course covers the fundamentals of legal issues in real estate finance and development from through a managerial lens. This course is a component of the MBA in Real Estate and develops skills in legal concepts in a real estate setting. Topics that are included in the course are land acquisition, finance; choice of entity; tax aspects; management (leasing, environmental); disposition of real property (sale of mortgaged property, foreclosures, wraparound mortgages, sale-leasebacks), and recent legal developments.

GB-520. Nonprofit Management. 3.00 Credits.

This course will provide an introduction to some of the special management and leadership issues facing nonprofit organizations. Ethical challenges within the nonprofit sector will also be explored.

GB-530. Corporate Finance. 3.00 Credits.

A study of the problems associated with the financial management of business organizations. Topics include the analysis of types of firms and markets, review of accounting, time value of money, valuation, and short-term financing.

GB-533. Enterprise Design Thinking. 3.00 Credits.

Students will learn a robust framework for applying design thinking techniques to key issues facing organizations across industries. Key skills developed include shared goal setting and decision-making, processes for continuous innovation, and the alignment of multi-disciplinary teams around the real needs and experiences of users and customers. Through instruction, experiential learning and an industry-recognized methodology, students will gain practice in the successful application of design thinking techniques to address common business problems.

GB-535. International Finance. 3.00 Credits.

Analysis of the international financial decisions of multinational corporations. Topics to be covered include foreign exchange rates and the structure of foreign capital markets. Particular emphasis is placed on management decisions in an international environment including cash flows, capital budgeting, valuation, and the optimal capital structure for international operations. Prerequisites: GB-530.

GB-539. Financial Management in Nonprofit Sector. 3.00 Credits.

As current or prospective leaders, managers and staff of nonprofit organizations, students will gain basic knowledge about nonprofit financial reports, the ability to read and interpret the IRS 990 form, and an overview of how philanthropy and financial management interconnect. Students will also learn best practices for applying nonprofit accounting procedures and principles accurately to maintain compliance with state and federal regulations. Learners will gain practical skills in financial management and financial sustainability strategies.

GB-541. Blockchain for Managers. 3.00 Credits.

Students will learn how to help organizations lead the way into the adoption of Blockchain, identify industry areas for Blockchain applications and apply smart contracts using open source leading Blockchain technologies.

GB-554. Strategic Marketing: Nonprofit Sector. 3.00 Credits.

Throughout the analysis of case studies and the development of comprehensive strategic marketing plans, students will identify and apply a number of principles regarding nonprofit marketing, including brand awareness, donor retention and engagement, in a manner anticipated to generate revenue growth for an organization or social enterprise.

GB-555. Personal Branding. 3.00 Credits.

This course is designed to help graduate students evaluate and improve their skill sets to establish themselves as a brand. Learn the personal branding process to create a portfolio that exploits social media, blog/websites, video resumes, networking, etc.

GB-560. Data Science for Managers. 3.00 Credits.

Students will use advanced data science methods and tools, leveraging statistical sciences, machine learning technologies and industry-specific datasets, to learn how to implement unique data models that can solve challenging problems across all industries.

GB-565. Derivative Markets. 3.00 Credits.

An examination of derivative securities, market structures, and various valuation models. The course includes discussion of spot and future markets, the valuation of futures and options, investment strategies, portfolio insurance, and recent developments in futures and options markets. Prerequisites: GB-530(8454).

GB-567. Introduction to Project Management. 3.00 Credits.

Students will enumerate and utilize best practices and current process guidelines in project management within a variety of corporate contexts and industries, in order to achieve organizational objectives through budgeting, planning, marketing, financial forecasting, staffing and human relations, as well as other aspects of management science at the project and/or enterprise levels. While doing so, students will incorporate contemporary developments in global and virtual project management.

GB-570. Investment Analysis. 3.00 Credits.

An investigation of various financial instruments - including treasury securities, corporate bonds, stocks, options, and futures - as vehicles for effective investment decisions. Selected topics include: portfolio analysis, efficient markets, and analytical techniques for determining the value of specific financial instruments. Prerequisites: GB-530.

GB-576. Project Portfolio Tools & Technology. 3.00 Credits.

Students will refine their practical, theoretical and technical competencies in project management consistent with industry best practices, focusing on the intricacies of managing projects within a contemporary competitive environment in order to deliver tangible business outcomes. They will do so by utilizing project organization, stakeholder analysis, communication planning, risk and issue management, quality management, procurement, and project leadership they will also frame their project management endeavors within the broader context of business execution, which includes program and portfolio management, organizational change, strategic business planning and implementation, as well as the operation of a project management office. Prerequisites: GB-567 OR AC-567.

GB-580. Artificial Intelligence for Managers. 3.00 Credits.

This course explores the topics, technology, and skills required for the successful development and implementation of Artificial Intelligence in today's business landscape. Students will explore methodologies used in analyzing the data interpreted by AI and effectively adapting the analysis into business requirements.

GB-581. AI Leadership and Ethics. 3.00 Credits.

In this course, students will reconcile the competing concepts of democracy, legitimacy, and transparency from the vantage point of artificial intelligence, investigating how AI can contribute to disparities in resources, opportunities, and authority across the business landscape and within various organizational contexts, sometimes perpetuating historical injustices and power imbalances. Students will distinguish between eXplainable AI (XAI) and Black box AI, as they conceptualize responsible AI and empower themselves to emerge as informed, socially responsible corporate leaders with cutting edge expertise. Students will compile a portfolio to document and describe these achievements.

GB-585. Generative AI. 3.00 Credits.

In this introductory course, students will identify and investigate generative technologies, their potential applications, and any implications and social consequences associated with their implementation. Students will experiment with AI tools, modifying assignments or tasks to incorporate AI elements in their responses. Furthermore, through engagement in online discussions, Students will refine how they utilize AI tools and techniques, while enhancing critical thinking within the context of prompt engineering.

GB-589. Topics in Management. 3.00 Credits.

Topics vary by term. Example topics may include but are not be limited to the following: advanced project management techniques; non-profit, philanthropic, and/or faith-based management; coding fundamentals for entrepreneurs, managers, and executives; and mindfulness in the workplace.

GB-590. Cloud Computing for Managers. 3.00 Credits.

Students will create disruptive cloud-based solutions that can provide unique customer experiences through the use of user-centric design practices, agile methodologies and the integration of cloud-based security, data and AI capabilities.

GB-595. Hedge Fund Management. 3.00 Credits.

This course contrasts the analytical methods of traditional fundamental analysis and quantitative investing analysis by focusing on investment management, types of investment funds such as mutual funds, ETFs, hedge funds, high frequency trading, etc. Hedge funds and hedge fund investment analysis methods are going to be analyzed in detail during this course. Prerequisites: GB-511 DS-660.

GB-596. Real Estate Practicum Capstone. 3.00 Credits.

The practicum capstone course provides a project-based hands on approach for students to experience firsthand the real estate development process from the ground up. Students will be able to use the tools and frameworks provided throughout the program curriculum to this applied experiential practicum, that puts the students in the role of decision maker and leader, as well as cover a variety of real estate product types, including office, retail, warehouse, mixed residential and specialty uses.

GB-605. AI Applications in Business. 3.00 Credits.

Through the examination of case studies and real-world examples across diverse sectors, students will catalog and critique artificial intelligence (AI) applications currently impacting the workplace. Learners will then identify opportunities and challenges associated with AI integration; they will also devise and evaluate comprehensive strategic plans for managing the practical applications of AI in the workplace. Topics include the impact of AI on organizational design, human resources, decision-making, and creativity. No particular technical background with coding or statistics is required.

GB-607. AI Apps in Marketing and Finance. 3.00 Credits.

In this course, students will analyze AI-driven applications designed to improve the customer experience and client engagement. They will optimize the potential of deep learning in order to synthesize AI-powered data analytics regarding consumer behaviors, fraud prevention and marketing efforts. Students will utilize AI applications in order to navigate the complex landscape of safeguarding consumer data; to do so, they will employ both supervised and unsupervised machine learning to enhance fraud detection and consumer protection methods.

GB-608. AI Apps in the Healthcare Industry. 3.00 Credits.

In this course, students will utilize AI-driven data in machine learning within the context of healthcare management as well as other decision-making within the healthcare field. They will optimize the potential of deep learning in order to synthesize AI-powered data analytics in order to improve patient outcomes and enhance client satisfaction within the framework of organizational needs, resources and constraints.

GB-609. AI Apps in Human Resource Management. 3.00 Credits.

In this course, students will utilize AI-driven data in machine learning within the context of human resources management and related decision-making. They will incorporate blockchain technology to help mitigate bias within this context, and will conjecture how the capabilities of machine learning as well as other existing and emerging technologies effectively impact the entire employee lifecycle and related HR functions. Students will discuss case studies that examine bias, discrimination, and injustice in the context of human resources.

GB-610. AI Apps in Sports and Entertainment; AI Apps Sports and Entertainment. 3.00 Credits.

In this course, students will analyze and interpret algorithmic output, such as from Natural Language Processing (NLP), in order to measure social media trends, comments and sentiments across the entertainment and sports industries. Students will also utilize predictive modeling to analyze consumer behavior, including viewing habits and preferences.

GB-619. Employment Law. 3.00 Credits.

Students will review key legislation and legal cases that form the framework within the human resources management discipline. Areas covered include rights and duties of both employer and employee in the employment relationship, legislation pertaining to employment standards, employment equity, workers' compensation, health and safety acts and other related topics. Prerequisites: GB-511 OR GB-621.

GB-620. Leadership. 3.00 Credits.

Business today requires leaders who enable organizations to respond quickly and efficiently to new market opportunities, new competitors, acquisitions, shifting market demographics, new technology and changes in government regulations. Topics explored include: the basic fundamentals of leadership; various aspects of the relationship between leaders and teams, and their impact on organizations.

GB-621. Human Resources. 3.00 Credits.

This course provides an overview of the principles and philosophy of human resource management. Topics include recruiting, hiring, training, and compensating employees, creating policies and procedures to improve employee productivity, developing effective and efficient systems for management, and methods to assure legal compliance. Prerequisites: GB-511.

GB-622. Management Economics. 3.00 Credits.

This course examines the foundation concepts for how organizations allocate resources for the production, distribution, and consumption of goods and services. Economic decisions are linked to the organization, management, and strategy involved with the conduct of operations. This course focuses on how managers can improve their understanding of the economic environment and its impact on the business firm.

GB-623. Entrepreneurship & Innovation. 3.00 Credits.

Covers skills and talents essential for a successful entrepreneur and explores the role of innovation in business ventures and strategy.

GB-624. Technology for Managers. 3.00 Credits.

This course examines the emerging role of technology and applications to support organizational business models and computer systems. It integrates data base management and planning and controlling new systems, it discusses security and other issues related to systems support for marketing, management, and financial reporting.

GB-625. International Business. 3.00 Credits.

This course provides an understanding of best practices managing business operations that cross national boundaries. It covers strategies, planning, and operations. A particular focus is the current opportunities and risks in global operations and markets. It uses projects to challenge attendees to incorporate new thought processes in decision making and problem solving in developed countries.

GB-626. Cyber Risk Management and Insurance. 3.00 Credits.

This course deals with the role of the risk manager advising on business interruption arising from failures of management information and telecommunications systems. It addresses the complexity of technology, interaction of the web and back office, and security failures. It covers the use of cyber insurance and risk transfer strategies to protect assets, people, and business operations. Course Type(s): Online Course.

GB-628. Organizational Theory. 3.00 Credits.

Organizational theory (OT) is the study of how and why organizations function and create value. The evolution of technology has increased in frequency and complexity to challenge the traditional organization by greatly changing the way employees work and the work they do. This course will examine the historical origins of OT and will explore current approaches to managing organizational processes through designed structure and culture.

GB-629. Enterprise Risk Management. 3.00 Credits.

This course covers the emerging discipline of enterprise risk management (ERM) . It starts with ERM essentials covering key components needed to manage enterprise risk and the role of a central risk function. It discusses risk identification and sharing using a high-tech electronic platform. It considers unexpected and unforeseen major crises or disaster that are virtually unpredictable. It exams new technology to visualize risk relationships and back up the view with factors that affect them and the status of activities to mitigate them.

GB-630. Strategic Risk Management. 3.00 Credits.

This course covers risks without owners in the emerging discipline of enterprise risk management (ERM) . It exams risks and opportunities that depend upon collaboration because they cross the silos of the modern bureaucracy. Discussions cover sub-culture risk, leadership risk, and life-cycle risk. In addition, the course contains risk management stories ranging from avoiding business disruptions to the future of ERM.

GB-631. Risk Management and Insurance. 3.00 Credits.

This course covers risk management from the perspective of insurable exposures that confront modern organizations. It examines decisions to retain, mitigate, or transfer exposures. Topics include property, general liability, and employer liability exposures, protecting directors and officers, and managing potential disruptions to operations. Special attention is given to the role of and expectations from brokers, broker performance, and the compensation of brokers.

GB-632. Negotiations & Conflict Resolution. 3.00 Credits.

This course presents the conceptual framework and a deep focus on business and negotiation skills and strategies, conflict resolution and relationship management to equip the student to maintain healthy business relationships. Prerequisites: GB-511.

GB-633. Executives in Residence Seminar I. 3.00 Credits.

This course brings senior executives to the classroom to exchange ideas on the goals and strategies of companies and industries. The course will identify issues related to current trends in business strategy. Candidates will work in teams to develop an understanding of critical success factors in global business strategies and create presentations. Guest executives will respond to the presentations with their own views on goals, strategies, and current business trends. This course is generally offered in the Fall.

GB-634. Executives in Residence Seminar II. 3.00 Credits.

This course brings senior executives to the classroom to exchange ideas on the goals and strategies of companies and industries. Candidates participate in the seminar and then create a presentation on the ideas and lessons learned in the interaction with executives. This course is generally offered in the Spring.

GB-637. Cluster Analysis With Machine Learning. 3.00 Credits.

In this course, students will utilize machine learning techniques to generate business intelligence through the discovery of patterns and relationships in data. In particular, students will apply cluster analysis, or clustering this method of unsupervised learning and technique for statistical data analysis groups objects based on characteristics, such as high intra-cluster or low inter-cluster similarities. Pre-requisites: DS-542 and DS-630 Prerequisites: DS-542 DS-630.

GB-638. Disaster Recovery. 3.00 Credits.

In this course students will learn how to identify cyber security vulnerabilities and implement appropriate countermeasures to mitigate risks. Techniques will be taught for creating a continuity plan and methodology for building an infrastructure that supports its effective implementation. Throughout this course, skills in disaster recovery planning will be acquired through a series of interactive workshops and case studies. Students will design and develop a disaster recovery plan. Prerequisites: CY-510 OR GB-639.

GB-639. Cyber Security and Risk Management. 3.00 Credits.

In this course we will study the concepts in cyber security design and implementation for computer systems (both hardware and software). Security architecture, organization policies, standards, procedures, and security system implementation, including diagnostic testing of databases and networks. Throughout this course, practical skills will also be acquired through a series of interactive risk assessment workshops and case studies.

GB-640. Cyber Crime Invest & Digital Forensics. 3.00 Credits.

The topics covered in this course include cyber-crime investigation, digital forensics, forensic duplication and analysis, network surveillance, intrusion detection and response, incident response, anti-forensics techniques, anonymity and pseudonymity, cyber law, computer security policies and guidelines, court report writing and presentations, and case studies. The course will include lecture and demonstrations and is designed around a virtual lab environment that provides for robust and realistic hands-on experience in working with a range of information assurance topics. Students will be assigned projects to apply information security practices and technologies to solve real-world cyber security problems.

GB-641. Marketing Strategy. 3.00 Credits.

This course equips the student with advanced marketing concepts and methods to provide and sustain customer value. Emphasis is placed on the tools managers use to analyze marketing problems and make effective decisions. Discussions include case studies, analysis of marketing models, group presentations, and computer-based models to reinforce the marketing strategies. Prerequisites: GB-513 OR GB-643.

GB-643. International Marketing. 3.00 Credits.

This course covers the process of international marketing including techniques of exporting and importing, creating foreign direct investments, licensing, franchising, partnering, and other structures. Discussions focus on cultural and economic factors that shape strategies in developed and developing consumer and business markets and strategies for successful branding, pricing, and promotion.

GB-645. Marketing Research. 3.00 Credits.

This course covers the tools and techniques used to gather information in order to identify market opportunities, monitor marketing performance and evaluate market change. Special attention is given to matching the characteristics of products and services with the needs of businesses and individual buyers. Prerequisites: GB-513.

GB-646. Crisis Communications. 3.00 Credits.

The need for effective crisis communication is a valuable asset for an organization, especially now in a 24-hour news cycle and with multiple social media outlets. The focus of the course is to identify, define and prepare students to proactively and effectively respond to crisis situations.

GB-647. Global Logistics. 3.00 Credits.

Students will investigate international movements from producing through distribution to the sale of components and finished products in order to solve problems and create solutions when managing complex supply chains. Class discussions will include planning and managing systems that create efficient and timely cross-border and cross-ocean shipments.

GB-648. Social Networking & New Media. 3.00 Credits.

This course is part class and part workshop, covering social networking and other trends that are producing complex and subtle changes in business communications. Topics include blogging, YouTube, Second Life and various social networking sites and their emerging role for private businesses, their products, and markets. Attention is paid to current trends in convergence, creativity, collaboration and community as modern media replaces earlier forms of communication and attracts more active --- and interactive ---audiences. The goal of the course is for students to familiarize themselves with various social networking theories, perspectives, sites, tools, and strategies, and to critique, consult on and create social networking plans.

GB-650. Business Analytics. 3.00 Credits.

Introduction to statistical analysis using three software packages: WATSON, Excel and Tableau; probability: distributions, expectation, variance, covariance, portfolios, central limit theorem; data summaries and descriptive statistics.

GB-651. Predictive Analytics. 3.00 Credits.

Analysis of time series data with emphasis on appropriate choice of forecasting, estimation, and testing methods to solve business problems.

GB-652. Industry Analytics. 3.00 Credits.

This course covers concepts and techniques for retrieving, exploring, visualizing, and analyzing data to develop marketing strategies, and key metrics to assess goals and return on investment. Special emphasis on market segmentation, social media and website clickstream data.

GB-653. Real Estate Valuation & Market Analysis. 3.00 Credits.

This course explores the steps and data techniques used in the valuation and market analysis process. It provides an analysis of real estate trends, market activity, sales, lending, leasing, and the research process. Additional topics include land-use studies and city planning, traffic studies, population behavior and mobility, and consumer spending and trade area. Pedagogy includes live lectures, case studies, simulations, and class discussion.

GB-654. Property Mgmt Real Estate Invest Mgmt. 3.00 Credits.

This course includes coverage on the area of commercial property management, allowing students to gain a comprehensive understanding of the principles, practices and skills needed to manage commercial office and mixed-use buildings. Among the topics covered within this course are: ownership structures and investment strategies; management plans and agreements; operating procedures; fees; personnel management; risk management and insurance; ethics; and many more. In addition, current industry trends and analysis of key issues within real estate investments will be explored. Students will have the ability to combine theory with practice regarding specific relevant topics.

GB-655. Real Estate Development. 3.00 Credits.

This course is an introduction into different phases of the real estate development process. These include conceptualization, site acquisition, planning and design, construction, financing, leasing, and marketing. In addition, you will learn about leadership, management, and control of a development team. Studying various case studies and analytical tools, you will learn how to align your development vision and decisions with best practices and current trends within the industry.

GB-657. Urban Design Zoning & Land Use. 3.00 Credits.

This course introduces key areas within planning such as housing, land use and transportation. Other topics explored include zoning, entitlements, environmental impact assessments and legal and regulatory issues. More broadly students will learn about risks and opportunities for urban planning and design and land use, that considers multiple stakeholders and an inclusive approach.

GB-661. E-Commerce Technology. 3.00 Credits.

This course provides an understanding of e-Commerce as a modern business methodology that addresses the needs of organizations, merchants, and consumers for the delivery of goods and services using information technology. The course will provide an introduction to the network and system architectures that support high volume business to consumer web sites and portals, and will provide insight into the structure of the modern web enabled storefront and its integration with "back-office" business applications.

GB-667. Disaster Recovery. 3.00 Credits.

This course covers the identification of vulnerabilities and the steps necessary to mitigate risks. It examines creating a continuity plan and building an infrastructure that supports its effective implementation. Practical skills will be acquired through interactive workshops and case study. Topics include performing a threat and impact analysis, developing strategies for systems and communications recovery, organizing an emergency team, and creating a disaster recovery plan.

GB-669. Decision Support Systems. 3.00 Credits.

A hands-on survey of various software packages to aid a manager in his/her decision making functions. Packages include enterprise resource planning, financial, administrative, report-writers, project management and scheduling, graphics, publishing and multimedia. Students will conduct an evaluation on top software products in the marketplace.

GB-671. Health Care Financing & Risk Management. 3.00 Credits.

An examination of concepts related to health care financing. Emphasis will be placed on budget preparation, cost benefit analysis, managed care and on developing an understanding of reimbursement systems.

GB-672. Current Issues & Policies in Health Care. 3.00 Credits.

This course covers political, social, and economic issues affecting health care organizations. Topics include the role of government in determining health care policy, the U.S. health care delivery system, costs and financing of health care, and social welfare gains and losses. Candidates will engage in interactive discussions of current trends and economic and social issues related to efforts to reform or revise the health care system.

GB-673. Health Care Administration. 3.00 Credits.

Management, marketing, and financing of the delivery of health care will be explored. Healthcare economics is emphasized from an administrative perspective. The examination of quality versus quantity, the allocation of resources as well as relationships and conflicts among consumers and providers of health care services. Concepts related to technology, including the Electronic Medical Record (EMR) affecting health care organizations is discussed.

GB-674. Health Care Administration II. 3.00 Credits.

An examination of quality issues and measures utilized in healthcare, human resource management in healthcare settings including physician and labor relations, recruiting, retaining and developing clinical staff, as well as medical malpractice, compliance and Medicare fraud and abuse issues.

GB-693. Credited Internship. 3.00 Credits.**GB-694. Mindfulness/Meditative Practice/ Success. 3.00 Credits.**

This class will teach students the history and application of mindfulness and meditation as practiced around the world. Students will learn how the practice of mindfulness and meditation can help develop the skills necessary for success in their future as business professionals, lawyers, and leaders generally. Mindfulness directs a person's thoughts to the present which enhances one's ability to focus thought and concentration as well as to respond most appropriately and ethically to others, to cross cultural barriers and maintain deeper empathy for all. Meditation practice enhances students' abilities to become more consciously aware, feel gratitude, and in turn to have respect, kindness, and consideration for others. We will explore these concepts as celebrated in different cultures and how application of both will propel students to their greatest potential. Course Type(s): International (Travel).

GB-695. Global Business Policy. 3.00 Credits.

This course develops a comprehensive approach to problem solving and decision making. Students demonstrate a mastery of concepts as they analyze projects with a setting in a specific international environment. Develops skills in strategic planning and making decisions and recommendations in operational and financial areas.

GB-697. Global Business Cultural Experience. 3.00 Credits.

This course seeks to foster a global mind set among participants by exposing them to the business cultures and ethics of different countries. The course involves overseas travel to selected countries for students to experience at first hand the milieu of cultures that underpin global business in the 21st century. Additional travel course fee of \$50. Course Type(s): International (Travel).

GB-698. Exploring Legal Concepts Overseas. 3.00 Credits.

In this course we will discuss different legal concepts as they pertain to foreign countries and as compared/contrasted to the American Legal System. Such topics may include, but are not limited to, the structure of the legal system, the origin and philosophy of law, the social and economic effects of the law in the foreign country, contemporary and controversial legal issues in the foreign country, and the impact all of these concepts may have had and/or continue to have on American Law. Additional course fee of \$50. Course Type(s): International (Travel).

GB-699. Capstone in Corporate Strategy. 3.00 Credits.

This course is to be taken within the last 9 credits of the MBA Program and covers the integration of management, marketing, and finance in modern organizations. It incorporates the best practices in strategic planning and decision making in complex and changing environments. Current trends and strategies are examined in a variety of areas including ethics, social responsibility, and risk management. Additional course fee of \$45. Course Type(s): Capstone.

GE Courses**GE-500. Historical/Philosophical Foundations/Edu. 3.00 Credits.**

Examination of historical and philosophical foundations of education in our socially and culturally diverse country; introduction to thoughts of influential educators and the principles and ideas underlying educational policies; development of personal philosophy of education through identification of ideologies behind educational systems, curriculum, and goals.

GE-501. Hist & Philosophical Found - Early Child. 3.00 Credits.

Examines the historical, social, political, and philosophical foundations that impact the education of children in a culturally diverse society. Principles and ideas underlying educational policies and how education responds to the evolving needs and dispositions of our society.

GE-502. Psychological Foundations of Learning. 3.00 Credits.

Processes, conditions, and techniques associated with learning in human beings; learning theories and their applications, heredity, the learning environment, motivational patterns, concentration, memory, effective study, reaction, intelligence, personality, mental health, and moral integrity.

GE-503. Psychological Foundation Early Childhood. 3.00 Credits.

Processes, conditions and techniques associated with learning in human beings, learning theories and their application to early childhood education settings. The learning environment will be discussed as it relates to supporting best practices in early childhood education and supports developmentally appropriate learning experiences.

GE-505. Directed Research in Education. 3.00 Credits.

Survey of the basic concepts, procedures, and language of social science research: problem formulation, research design, data collection, data analysis and interpretation. Development of the student's ability to evaluate published research.

GE-506. Child and Adolescent Psychology. 3.00 Credits.

This course introduces students to how a child develops from birth to age eight. It will address students with special needs, gifted students and English as second language populations.

GE-507. Professional Assessment Strategies. 3.00 Credits.

Course would incorporate subject specific content and strategies for taking standardized assessments.

GE-508. Research in Early Childhood Education. 3.00 Credits.

Survey of the basic concepts, procedures, and language of social science research: problem formulation, research, design, data collection, data analysis, and interpretation. Students will research a current topic/problem in the field of early childhood education and conduct a presentation on their findings.

GE-509. Hist./Cult. Background of Engl. Learners. 3.00 Credits.

This course will examine culturally diverse groups of students from various backgrounds and determine the influence they have had in today's schools with an emphasis on educational policies that have provided for the support of second language learners.

GE-510. Principle of Curriculum Design & Develop. 3.00 Credits.

A study of the elements and principles of curriculum design and construction for teachers at the elementary and secondary school levels. This course considers the theoretical concerns of curriculum planning as well as the activities involved in carrying theory into practice. Students will learn about effective curriculum planning that addresses state standards and meets the needs of students with diverse learning styles, disabilities and English Language Learners.

GE-511. Principles/Problems/Sch Administration. 3.00 Credits.

Theories of leadership behavior: the changing role of the administrator, the roles of school personnel in administration, school and community relationships. Budget-planning responsibilities, master schedule construction, relationships with staff and pupil personnel, problem-solving techniques will be discussed.

GE-512. Assessment/Student Ability/Achievement. 3.00 Credits.

An overview of essential concepts and principles of classroom and school-wide formative and summative assessments such as PARCC. An examination of tests and trends in testing, namely, psychological, standardized, and achievement tests and the rationale and assumptions underlying these assessments. Consideration and evaluation of the types of tests commonly used such as PARCC, state, local, and national assessments as well as discussion of the interpretation of the results.

GE-513. Fundamentals/Elem and Secondary Supervsn. 3.00 Credits.

The supervisor's role as an educational leader/consultant. Objectives and techniques of instructional supervision; state mandated rules for evaluation of teachers and administrators; an analysis of evaluative instruments; and the supervisor as curriculum manager.

GE-514. School Finance. 3.00 Credits.

A study of the role of the local, state, and federal government in the financing of public education.

GE-515. Intro to Ed Tech/AI Teachers/Admin. 3.00 Credits.

This course provides a history of the rationale for and development of AI for use in Educational Settings. Participants will explore current uses and will discuss future use of AI in education. The course will include blending AI with more traditional teacher and commercially developed curricula and instructional strategies. Specific applications for multi-lingual, multicultural students and students with disabilities will be addressed. A major focus of the course will include ethical considerations of the adoption and use of AI in contemporary schools.

GE-516. School Law. 3.00 Credits.

A study of the legal framework in which public education operates. Federal and state laws affecting education and schools; school laws relating to the State Department of Education, school districts, local boards of education; and NJ 18A.

GE-517. Prin of Curr Dev in Early Childhood Educ. 3.00 Credits.

This course will focus on developing appropriate and innovative methods in teaching P-3 students.

GE-519. Cultural Diversity. 3.00 Credits.

The changing demographics in the world reflect a growing social diversity and require a heightened awareness of the need to develop culturally competent practitioners. A primary challenge is acknowledging the multiple social and cultural identities in an inclusive rather than exclusive way. This course is designed to heighten students' knowledge, awareness and understanding of differences among people, as well as raise students' consciousness and sensitivity to socially constructed problems resulting from difference.

GE-526. Fundamentals of Speech. 3.00 Credits.

This course introduces students to the theoretical and practical requirements of different types of public presentations and helps students understand the communication process. It will focus on the basic elements of the communication process and audience characteristics.

GE-527. Social Welfare. 3.00 Credits.

This graduate level course lays the groundwork in preparing students to be informed and competent professionals who implement programs and work to create policy change within organizations and beyond. Starting with an understanding of the development of the social work profession over time, students learn how theory impacts policy and agency work, with a focus on how social work values and ethics impact this trajectory.

GE-528. Internship: Admin/Supervision I. 3.00 Credits.

Internships are arranged to give students on-the-job training. Supervision is provided by college staff in conjunction with the superintendent of the school district and building principal.

GE-529. Internship: Admin/Supervision II. 3.00 Credits.

Internships are arranged to give students on-the-job training. Supervision is provided by college staff in conjunction with the superintendent of the school district and building principal.

GE-540. Fundamentals of Methodology. 3.00 Credits.

An analysis of effective teaching skills, classroom management techniques, successful motivational strategies, objectives, lesson plans and innovative methods. Additional TK20 fee of \$100.

GE-541. Method Curr & Assess: Early Child Class. 3.00 Credits.

This course will focus on implementing developmentally appropriate teaching practices, classroom management techniques, successful motivational strategies, objectives, lesson plans, and innovative methods. In addition, students will be provided situations to assess professional goals, develop authentic assessment practices, and respond to the cultural, linguistic, and learning needs of all students. Additional TK20 fee of \$100.

GE-542. Method & Educ Pedagogy of World Language. 3.00 Credits.

This course is designed to address the needs of students preparing to teach a world language in the K-12 classroom. The course is designed around the standards for Foreign Language Learning, commonly referred to as the Five C's: Communication, Cultures, Connections, Comparisons and Communities. Current theoretical bases for teaching world languages will be discussed and analyzed. Lesson plans will be created, assessments will be designed and mock lessons will be presented, critiqued and examined. The Oral Proficiency Interview and Praxis Exam will be explained and practiced. Many methods and techniques will be covered and demonstrated in order for students to understand different teaching practices.

GE-545. Teaching/Assessing 2nd Language Learners. 3.00 Credits.

Students will learn about the four domains of language (listening, speaking, reading and writing) and how each domain is developed as students learn the English language. Emphasis will be placed on specific research-based methods of teaching ESL (i.e. sheltered instruction) and effective ways of assisting the English Language Learner. Students will develop an understanding of effective ways of developing lessons for English Language Learners through various content areas.

GE-547. Student Teaching. 8.00 Credits.

Supervised classroom teaching experience on the elementary or secondary level including seminar meetings and conferences scheduled prior to and during the student teaching term. Additional TK20 fee of \$100 and EDTPA fee of \$300. Prerequisites: GE-546.

GE-550. Clinical Practice 1: Early Child & Elem. 4.00 Credits.

Clinical practice in an early childhood or elementary setting in order to provide students with the skills and dispositions necessary to become effective early childhood teachers and develop relationships with school colleagues, families and community. Students will provide learning activities that support cognitive, emotional and social development. They will design learning experiences that support culturally responsive teaching, plan and assess developmentally appropriate lessons and units. Additional TK20 fee of \$100.

GE-551. Clinical Practice 2: Early Child & Elem. 8.00 Credits.

Students plan and implement developmentally appropriate and culturally responsive curriculum in an early childhood/ elementary classroom which demonstrates their knowledge of child development and the role of the school community with regard to children's learning. Students implement the Core Curriculum Content Standard through an integrated curriculum. They use multiple strategies to assess learning and demonstrate effective classroom management. Additional TK20 fee of \$100.

GE-555. Computers in Curr Design Dev. & Eval. 3.00 Credits.

Application of computer in curriculum design, including areas such as instructional technology, research, communication with school community, and study skills; use of the internet in formulating curriculum which includes inter-disciplinary learning units to meet the New Jersey Core Curriculum Content Standards in all areas. The evaluation of the use of technology in school curriculum and design will be discussed.

GE-556. Integratng Tech in Early Childhood Class. 3.00 Credits.

This course will adapt the use of technology to the unique needs of P-3 learners.

GE-570. Foundation of Reading Curr. Des. & Dev.. 3.00 Credits.

The nature of the reading process: material and techniques used in readiness, language experience, work analysis, basic text, comprehension, content area, study skills and speed reading. Introduction to research based models of reading instruction and curriculum development; an analysis of state standards in language arts and literacy, and teaching reading across all areas of curriculum will be addressed.

GE-571. Diagnosis/Treatmt: Childr/Learn Disab. 3.00 Credits.

Theory and practice in identification, evaluation and remediation of learning disabilities. Understanding the role of the child study team and the development of an IEP. Introduction to legislation supporting students with disabilities. Summary of research on the human brain related to learning disabilities, formal and informal stages of referring students for learning evaluation.

GE-574. Diagnosis of Children/Reading Problems. 3.00 Credits.

Techniques for diagnosing elementary and high school students with reading difficulties, causes of reading problems; evaluation of frequently used tests and inventories including group and individual, survey and diagnostic, formal and informal evaluations will be discussed as well as communication of results to parents and colleagues; and a case study analysis of students with reading disabilities.

GE-576. Remediation/Children/Reading Problems. 3.00 Credits.

Remediation of elementary and high school students with reading difficulties; interpretation of frequently used tests and inventories including group and individual, survey and diagnostic, formal and informal; techniques of remedial and corrective treatment of reading disorders; evaluation of materials used in remediation; development of an IEP for reading.

GE-577. Research Seminar in Literacy. 3.00 Credits.

This course presents the basic concepts, procedures, and language of social science research: problem formulation, research design, data collection, data analysis and interpretation. The ethical and legal aspects of conducting educational research and sampling techniques in schools are explored. Students will learn to analyze and develop a related research project with the guidance of the professor. The course is specifically designed to provide students with the necessary knowledge to interpret, evaluate and apply research as it relates to special education and language literacy.

GE-578. Supervision of Reading Programs. 3.00 Credits.

Administering and supervising reading programs; initiating programs; conducting in service training; developing a budget; and conducting an evaluation of programs and personnel. Faculty development in areas of reading related to New Jersey Core Curriculum Standards.

GE-579. Supervised Practicum in Reading. 3.00 Credits.

Field experience: the opportunity for students to gain practical knowledge and experience in the fields of developmental and remedial reading instruction. Case study in diagnosis and remediation of instruction, supervised by a licensed reading specialist. Prerequisites: GE-574 AND GE-576.

GE-580. Teach. Lit. for English Lang. Learners. 3.00 Credits.

Students will explore effective ways of teaching literacy strategies while emphasizing second language acquisition strategies. Best practices will be examined and discussed. Students will learn about the transfer of language skills.

GE-585. Phonology&structure of American English. 3.00 Credits.

Students will examine and analyze the grammatical structures and the sound system of American English as it applies to English Language Learners.

GE-590. General Linguistics. 3.00 Credits.

This course will focus on the structures of the English language. Comparisons about the English language and other languages will be discussed. There will be an emphasis on the nature of language as a whole and how it is both learned and acquired. Students will learn about the interaction of first language and first language development and second language and second language acquisition.

GE-591. Process of Second Language Acquisition. 3.00 Credits.

Students will learn the stages of second language acquisition and develop an understanding of how second language learners move from one stage to the next. Students will review and compare research in the field of second language acquisition and discuss findings.

GE-599. Graduate Education Independent Study. 3.00 Credits.

Study of a selected topic in depth utilizing field-based or library-based research. Prerequisite: Approval of the Dean.

GE-605. Theory and Practice of Teaching ESL. 3.00 Credits.

This course covers the theoretical foundations of second language acquisition. Students will explore research-based methods of teaching second language learners. The relationship between the native language and the second language will be emphasized.

GE-606. Directed Research in Higher Education. 3.00 Credits.

Survey of the basic concepts, procedures, and language of social science research: problem formulation, research design, data collection, data analysis and interpretation. Development of the student's ability to evaluate published research in Higher Education.

GE-614. Edu Disabilities/Specialized Instruction. 3.00 Credits.

Provides an overview and introduction to educational disabilities and special education. Characteristics and prevalence of a wide range of disabilities will be explored. Students will consider contemporary instructional approaches used for specialized populations.

GE-615. Instruc Strategies/Students/Disabilities. 3.00 Credits.

Provides students with knowledge and skills necessary to provide instruction that is both individualized and aligned with core course expectations. Multi-sensory and multiple intelligence learning theories will be explored. Instructional emphasis will be provided on teaching techniques to assist their students in the development of their own strategies and skills with the ultimate goal of independent living.

GE-616. Effective Class Mgmt/Behavior Intervent. 3.00 Credits.

Explores and considers behavior management theories and techniques. Recognition of behavior difficulties, consideration of behavior assessment devices and application of behavior management systems applicable to whole class and individual students will be provided.

GE-617. Asstg Stu-Spec Needs-Gen Educ Classroom. 3.00 Credits.

Techniques and considerations to facilitate learning for all students will be explored. Examination of inclusionary learning theories such as differentiated instruction and universal instructional design will be emphasized. Course content will include adaptation of the learning environment, developing supports for special needs students using a collaborative approach and knowledge of in-class support methods.

GE-618. Assessm't Techniques/Stu Disabilities. 3.00 Credits.

Students will be introduced to the use of assessment based decision making. Applications of assessment toward special education eligibility, informed instruction and behavior management will be addressed. Background procedures and application of both functional and formal standardized testing will be examined. Students will gain familiarity with testing most frequently utilized for special needs populations.

GE-620. Effct Class Mgmt & Behavior Intervention. 3.00 Credits.

Explores and considers behavior management theories and techniques that are developmentally appropriate in the Early Childhood Classroom. Recognition of behavior difficulties, consideration of behavior assessment devices and application of behavior management systems applicable to whole class and individual students will be provided.

GE-631. Philosophy and Theory of Behaviorism. 3.00 Credits.

This course will focus on the scientific and philosophical underpinnings of behavior analysis from Greek naturalism to the 21st century. It covers the history and philosophy of science and psychology; the long past, short history, and recent origins of behavior analysis in cultural context; historical and conceptual relations between behavior analysis and other systems (e.g., behaviorism, psychoanalysis, phenomenism, cognitivism); and historiographic issues and methods.

GE-632. Applied Behavioral Analysis II. 3.00 Credits.

Focus on complex behavioral principles and issues surrounding the application of behavioral principles in the analysis and modification of behavior. Student will learn to identify behavior and environmental relationships that constitute behavioral deficits or excesses. Prerequisites: GE-631.

GE-633. Applied Behavioral Analysis III. 3.00 Credits.

This course focuses on behavioral research and methodology to evaluate interventions based on single-subject experimental decisions. Different behavior assessment and behavior intervention strategies will be examined. Prerequisites: GE-632.

GE-635. Research Sem: Applied Behavior Analysis. 3.00 Credits.

This course will guide the student through the process of reviewing and analyzing data from a variety of sources, discussing various types of research designs, understanding the role of descriptive and inferential statistics, and the development and implementation of a thorough research project. Students will survey basic concepts, procedures and terminology used in education research. The ethical and legal aspects of conducting educational research and sampling techniques will be explored. The course is specifically designed to provide students with the necessary knowledge to interpret, evaluate, and apply research as it relates to special education and applied behavior analysis. Prerequisites: GE-631.

GE-637. Web 2.0 Tools & Applications. 3.00 Credits.

This course focuses on using current Web 2.0 tools and applications in the classroom. Students will practice using various Web 2.0 tools and applications to increase student engagement and motivate learners. Course Type(s): Online Course.

GE-640. Intro to Learning Management Systems. 3.00 Credits.

This hands-on course introduces students to using a Learning Management System (LMS). The students will practice using the interfaces, functions and features of the systems. Students will create and organize learning content and produce their own materials using various Learning Management Systems.

GE-641. Instructional Design & Delivery. 3.00 Credits.

This course explores the basics of instructional design and delivery. Students will blend the principles of learning theory with hands-on technology skills. Students will acquire practice with a variety of technology-based applications while exploring principles of design and instructional delivery. Course Type(s): Online Course.

GE-642. Current Issues & Trends in Ed Tech. 3.00 Credits.

This course examines current issues and trends in educational technology. Students will explore how these issues and trends affect curriculum development and educational settings. Course Type(s): Online Course.

GE-643. Autism Spectrum Disorder & Other Disabil. 3.00 Credits.

The focus of the course is to develop an understanding of autism spectrum disorders as well as other low incidence disabilities and acquiring effective preacademic, academic and social interventions to help students learn and participate fully in the classroom. The course provides an overview of autism spectrum disorders, from early childhood through the school age years, the identification and etiology, and best practices in programs and services for students identified with ASDs, as well as other low incidence disabilities.

GE-644. Using Tech Face-To-Face Or Remote Class. 3.00 Credits.

This course introduces technology techniques and tools that can be applied in traditional, remote, and hybrid classrooms. Students will utilize technology tools that can be applied in a variety of different ways, depending on the course's delivery method. Practical, real-world examples and scenarios will be used. Course Type(s): Online Course.

GE-652. Curriculum Development for Stu W Disabil. 3.00 Credits.

Students will gain knowledge about curriculum design, curricular adaptations, material selection and other pertinent instructional planning considerations for students with disabilities in both integrated and segregated settings. Appropriate focus and emphasis will be provided on the New Jersey Professional Standards for Teachers and the New Jersey Core Curriculum Content Standards recommended by national and state associations specializing in special education instruction.

GE-653. Assistive Technology- Uses & Application. 3.00 Credits.

Students will be introduced to the wide variety of assistive technology and will examine its usefulness and utility for students with disabilities. Consideration of assistive technology applications toward content instruction, student response, enhancement of classroom management, provision of social intervention and transition services will occur.

GE-654. Strategies Home Sch Comm Relationships. 3.00 Credits.

This course is designed to heighten sensitivity to the needs of families of children with disabilities and develop techniques educators can utilize to assist families. Emphasis will be devoted to effective home-school team building and the identification and utilization of community resources that assist in meeting family based needs.

GE-660. Introduction to Counseling. 3.00 Credits.

This course teaches students to understand what they need to be a counselor. Students will decide what the career of counselor is and whether or not they have the ability to become a counselor. The course explores various ideas used in counseling such as behavioral, psychodynamic and humanistic approaches. Students will understand the skills needed to be a successful counselor.

GE-661. Individual Counseling and Interviewing. 3.00 Credits.

Interviewing is a skill which provides both learning and reflection. Developing skills in interviewing and counseling requires a careful observation of oneself as well as others. This process is a complex one. The objective of the course is to explore the proper interviewing techniques and individual counseling of a client. This course suggests exploration of a much more complex values agenda- the values which inform the choices that are made as a counselor. The skills learned in this course will create greater communication skills which is a major component in counseling.

GE-662. Group Counseling. 3.00 Credits.

This program prepares students to counsel others in a group forum. These groups typically consist of 5 to 8 members. This is a program devoted to helping one to learn about themselves and others. This group process will assist students wanting to become more involved with the community. Students can use this group counseling program to talk about their concerns with others that share the same concerns. Together, with other students, students will learn new ways of viewing problems objectively.

GE-663. Career Counseling. 3.00 Credits.

This course provides the support needed in job searches. It not only supports students but challenges them as well. Students gain self-knowledge, educational planning skills and career decision capabilities. These services act as educational tools while at the same time assist students the most with promoting their educational endeavors.

GE-664. College Counseling. 3.00 Credits.

Examination of college guidance and admissions process in its entirety will be investigated. Topics include early college awareness, parental involvement, exploring colleges using the internet, college fairs, campus visits and interviews, preparing your list of colleges. All aspects of completing individual college applications and the common application, SAT, ACT early decision, early acceptance, early action and financial aid issues such as the FAFSA, grants, scholarships, loans, EOF, and work study will also be explored.

GE-665. Crisis Counseling. 3.00 Credits.

Introduction of concepts and procedures utilized in crisis counseling for students, faculty/staff, parents, and the helpers/counselors themselves. Topics include: district and school crisis committees, planning relationships with outside agencies such as police, emergency medical services, and the American Red Cross. The utilization of psychiatric emergency services, psychiatric screening services and mental health hotlines, grief counseling, memorial/remembrance activities, individual crisis intervention, and post traumatic stress.

GE-667. Abnormal Psychology. 3.00 Credits.

Child, adolescent and young adult psychopathology will be explored. Topics include the nature, diagnosis and treatment of mental illness, psychopharmacology, mentally ill chemical abusers, the types, roles, limitations, certification and/or licensure of different practitioners, mental health evaluation and mental status exams and the use of the Diagnostic and Statistical Manual, Fourth Edition (DSM - IV) of the American Psychiatric Association with an emphasis on understanding and using the multi-axis diagnostic scheme.

GE-668. Psychology of Exceptional Children. 3.00 Credits.

This course introduces concepts, procedures, diagnosis, treatment and related issues pertaining to the psychology of children with special needs in school settings. Topics include the nature, basis, and types of disabilities with emphasis on but not limited to mental disabilities, ADHD, learning disabilities, Autism Spectrum Disorders, and medical/physical handicaps, identification, referral, evaluation, classification, program, and placement processes, IDEA, Section 504, NJAC 6A-14, PRISE, and NCLB considerations; student, parent, school, and district rights and responsibilities; transitional issues, and gifted and/or talented students will be addressed.

GE-669. Community Agencies Organizations & Res. 3.00 Credits.

Students will examine the roles played by and relationships with institutions outside of the traditional educational setting who partner with, supplement, and at times supplant school counselors. Topics include DYFS, family, courts, police, sex crime units, hospitals, school based clinics, certified or licensed private practitioners of all types, faith based groups and individuals, self-help groups, community mental health centers, and confidentiality issues.

GE-670. Multicultural Counseling. 3.00 Credits.

To help a client, sometimes counselors must understand and respect their cultural values. A counselor should have the ability to deal with biases, stereotypes and racism. Because there is an abundant amount of methods that borrow from other cultures, it gives counselors in the western hemisphere a chance to improve their therapy techniques. The counselor should be able to adapt and adjust to the patients, cultural experiences and understand the world views of their clients. Multicultural Counseling is a very difficult and trying task and counselors should have the knowledge to understand their clients.

GE-671. Substance Abuse and Treatment. 3.00 Credits.

A comprehensive overview of psychoactive substance abuse, treatment and related issues with special emphasis on problems with alcohol will be explored. Topics include the nature of abuse and dependence involving single and multiple substances, commonly abused substances, identification and referral of abusers for treatment, treatment options to include evaluation, early intervention, detoxification, rehabilitation, outpatient, self-help groups, and various combinations of the aforementioned. Additional topics will include: the impact of substance abuse on the individual, family, school, and community, co-dependency, school based testing, and educational/preventative measures.

GE-672. Practicum in Counseling I. 3.00 Credits.

This course is designed to train counselors. Students will learn about phases in therapy such as cognitive and behavioral work and termination. This course also allows the students to explore various theoretical situations. This course details the dealing with adversity, ethics and ethnicity of people. Through this course, students are properly prepared for the challenges that they will face in counseling clients.

GE-673. Practicum in Counseling II. 3.00 Credits.

This course furthers the educational development from Practicum in Counseling I. This course teaches students to understand the responsibilities of a counselor. They will also learn essential team work skills that will help in working with a consulting team. They develop these skills through observation. Through this course students acquire, integrate and apply knowledge of the field.

GE-674. Family Therapy. 3.00 Credits.

Introduction to the history, concepts, and procedures of Family Therapy will be examined. Topics include: theories and practice, systems, nature of family therapy, treatment plans and relationships within families. An emphasis on bringing about constructive change and development, the impact of AIDS, substance abuse, medical problems, gender, culture, criminality, divorce, economics, terrorism, war, and other social problems on families, non-traditional families and the dynamics of the family/school partnerships.

GE-675. Ethics Law and Prof Issues in Coun. 3.00 Credits.

Examination of the effects of ethical, legal and other professional issues in counseling. Topics include the 2005 American Counseling Association Code of Ethics with a detailed examination and analysis of its eight main sections, institutional policies and procedures, local, state, and national law, codes, New Jersey School Law Decisions, case law and the discussion of selected current issues in counseling drawn from professional journals and similar publications in the areas of counseling, psychology, social work and psychiatry.

GE-676. Case Studies in Counseling. 3.00 Credits.

This course focuses exclusively on case studies in counseling. It is an advanced post-masters pre-licensing seminar. Complex situations from school, private practice, hospital and agency counseling situations will be introduced, examined, and resolved. Following initial presentations by the instructor, participants will take part in multiple individual and group presentations. Some role playing will be required.

GE-677. Community Mental Health and Wellness. 3.00 Credits.

Extensive investigations into preventing common problems will be explored. The course will focus on fostering good mental health or psychological wellness. The counselor is seen as functioning in an extremely proactive role and as a wellness educator. Topics include establishing peer mediation programs, suicide awareness, managing impulsivity, forming support groups, training peer counselors, developing study skills, learning stress reduction techniques, recognizing and dealing with depression, isolation, cultural differences, understanding issues in human sexuality, avoiding gang involvement, and improving ethnic, race and gender relations.

GE-680. History of American Higher Education. 3.00 Credits.

The history and development of higher education in the United States will be reviewed. Political and economic factors will be integrated into the curriculum. Current issues in diversity, globalization, international partnership, and online learning will also be explored.

GE-681. Ethical Decision Making & Social Respons. 3.00 Credits.

This course concentrates on the responsibilities of the educational leader as an ethical exemplar, leader, and educator. Students will examine a variety of current ethical educational issues and develop effective moral decision-making skills.

GE-682. Organizational Behavior & Administration. 3.00 Credits.

This course focuses on the theoretical and practical implications of organizational behavior from a sociological perspective. Students will study organizational concepts such as diversity in the educational workplace, motivation and individual differences in organizations, group dynamics and decision making, cooperation, teamwork, management, professional development and quality improvement programs.

GE-683. Governance Management & Administration. 3.00 Credits.

Overview of the organization, administrative roles and positions, administrative process, personnel management, and administrator relationships within various institutions of higher learning.

GE-684. Innovative Curriculum Strategies. 3.00 Credits.

The broad range of experiences and perspectives brought to school by culturally, linguistically, and ethnically diverse students required educational leaders to provide innovative teaching methods. Responding to each student as an individual and using a holistic approach is key. This course will empower you to provide the necessary resources for all students to succeed.

GE-685. Finance Budgetary Plan & Resource Alloc. 3.00 Credits.

An overview of the budgeting process, sources of revenue, types of expenditures, and issues and innovations in financing various types of contemporary institutions of higher education. The course will also include a survey of the various business and planning operations vital to the operation of colleges and universities.

GE-686. Emerging Legal Issues in Higher Educ. 3.00 Credits.

This course covers laws, legal principles, and critical issues pertaining to higher education in the United States and New Jersey. Students will explore constitutional and statutory laws, regulations, and landmark court decisions affecting policy and practice. Special topics such as search and seizure, disabilities, religion, speech, due process, and equal protection under the law will be discussed. Students will research and analyze actual case studies to ensure a problem-based approach experience.

GE-687. Accountability: Assessment/Accreditation. 3.00 Credits.

This course explores the role of assessment in higher education, with an emphasis on designing effective student learning outcomes and departmental goals; as well as institutional effectiveness strategies and review. Students will also be introduced to accreditation processes, and how to use national institutional survey data to inform assessment.

GE-688. Global Comparisons of Higher Education. 3.00 Credits.

This course provides a comparative analysis of national and international higher education institutions to identify strengths, weaknesses and best practices.

GE-689. Online College Teaching. 3.00 Credits.

This course explores Quality Matters, established online learning standards to recognize, understand and utilize established best practices for online college teaching. The course will explore additional technologies and tools for online teaching.

GE-690. Comprehensive Research Project. 0.00 Credits.

Comprehensive Research Project for students in the higher education in general administration program. Course Type(s): Senior Seminar.

GE-699. Comprehensive Exam. 0.00 Credits.

Comprehensive Exam Course Type(s): Tutorial.

GE-801. Curriculum Development and Instruction. 3.00 Credits.

This advanced course concentrates on how curriculum is developed and implemented in organizational settings. The course is based on theoretical research, current societal issues, and school-based needs for accountability based education with specific strategies to foster learning, interventions, personalization and mastery of the curriculum. The students will analyze current curriculum standards and educational reform movements.

GE-803. School Policy Analysis. 3.00 Credits.

This course focuses on current educational and societal policy issues. Students will investigate historical and legal aspects of educational issues as well as the political principles of contemporary education. In order to gain a comprehensive understanding of educational policy, students will analyze the consequences and challenges in collecting policy information, incorporating various research methods, and implementing technology. Students will employ various resources to develop an extensive appreciation of the role of the educational leader in the American political and policy arena.

GE-805. Organizational Behavior& Educational Adm. 3.00 Credits.

This course focuses on the theoretical and practical implications of organizational behavior from a sociological perspective. Students will study organizational concepts such as diversity in the educational workplace, motivation and individual differences in organizations, group dynamics and decision-making, cooperation, teamwork, management, professional development and quality improvement programs.

GE-806. Dev. Inclus & Equit K-12 Leaders & Envir. 3.00 Credits.

This foundation course is a starting point for all K-12 leadership students. The course focuses on leadership topics that include diversity, equity, and inclusion. During this course, learners will prepare to serve as leaders in various K-12 environments as they study current educational theory and research. The course offers opportunities to explore social inequalities by virtue of ability/disability, class, ethnicity, gender and language, and how they are implicated within K-12 schools. Learners explore diversity initiatives as well as equity-driven program and curriculum development that involve stakeholders from a variety of educational areas.

GE-807. Statistics I. 3.00 Credits.

This course analyzes and applies descriptive and inferential statistics, elements of probability that support statistical theory, and theoretical distributions. Students will apply statistics to critical educational issues that require measurement, analysis, and decision making for organizational improvement. The students will also be required to design, conduct, and report a study that demonstrates their statistical skills.

GE-809. Research Design and Methods. 3.00 Credits.

This course will actively engage in the development and implementation of a draft of the formal research proposal. They will be required to complete the research process by utilizing both a quantitative and qualitative approach toward their respective research topic. All required components of the research proposal outline must be included, as described in the American Psychological Association Manual current edition.

GE-810. Leading Org Change in K-12 Edu: Dei Init. 3.00 Credits.

This course focuses on the theoretical and practical implications of organizational change from a sociological perspective and an intentional DEI (Diversity, Equity and Inclusion) focus.. Students will study organizational concepts such as diversity in the educational workplace, motivation and individual differences in organizations, group dynamics and decision making, cooperation, teamwork, management, professional development and planning.

GE-811. Qualitative Research Design and Analysis. 3.00 Credits.

This course is designed to develop proficiency in collecting, analyzing, and reporting qualitative data, using a variety of qualitative tools including ethnography, research interviews, content analysis, case studies, phenomenological studies and participant observation.

GE-812. Univ Design Org: Strategic Plan for DEI. 3.00 Credits.

In this course, doctoral students will learn elements of universally designed leadership and learning (UDL) and how those elements apply to non-profit organizations, schools and school districts. Universally designed leadership involves: 1. designing plans for shared vision through multiple forms of engagement, 2. implementing shared vision by providing all stakeholders multiple means of action and expression, 3. planning that monitors progress via self-assessment, reflection, and mastery-level feedback, and 4. Allows process adaptation via stakeholders engagement and persistence. This course prepares students to apply UDL principles across strategic thinking and planning, using data and needs assessment to achieve a goal of racial, ability, and gender equity. Students will also learn how to involve stakeholders (internal, external) in developing strategic plans, evaluating success, and mobilizing communities to effect change that increases inclusion. In this course, students will construct an individually developed process for strategic planning in non-profit or education organizations with the goal of realizing equity and inclusion for all organization members. Course Type(s): Online Course.

GE-822. Historical Trends in Higher Education. 3.00 Credits.

The history and development of higher education in the United States will be reviewed. Political and economic factors will be integrated into the curriculum. Current issues in diversity, globalization, international partnership and online learning will also be explored.

GE-824. Innovative Strategies in Educ Leadership. 3.00 Credits.

This course focuses on innovative strategies in educational leadership in modern society and its impact on organizational efficacy and institutional change. Students will research and analyze the historical, cultural, sociological, philosophical and theoretical perspectives in the leadership process.

GE-825. Ethical Found and Social Responsibility. 3.00 Credits.

This course concentrates on the responsibilities of the educational leader as an ethical exemplar, leader and educator. Students will examine a variety of current ethical educational issues and develop effective moral decision-making skills.

GE-826. Analysis & Interpret of Assessment Data. 3.00 Credits.

This course will prepare teacher leaders and administrators to analyze, manage, interpret and make decisions based on the data that is commonplace in America's schools.

GE-827. Assessment & Eval for Administrators. 3.00 Credits.

This course focuses on understanding, designing, developing, and evaluating assessment tools in the K-12 school environment. Professional responsibility, ethical behavior, and legal requirements in educational settings will be examined. Students will be provided the opportunity to design an instrument, collect and analyze data, and present their findings. Traditional and alternative assessments will be explored, along with measurement concepts of validity and reliability. Students will discuss federal and state laws, the application of those laws, and accountability procedures. School Administrators' erroneous judgments and assessment abuses will be investigated. Students will research practical strategies for aligning classroom assessments with state standards and developing scoring rubrics.

GE-829. Using Tech to Improve Curriculum Design. 3.00 Credits.

This course focuses on the role of the educational leader in utilizing emerging technologies to achieve and enhance school reform. This course will enable students to plan for the integration of emerging technologies into the design of the curriculum, instruction, research and assessment. Students will study contemporary technology issues and implications in the use of information and multimedia technologies in teaching and learning, communications and management. Students will research legal and ethical considerations in the planning, funding, professional development needs and evaluation related to the use of educational technology. Prerequisites: GE-801 GE-803 GE-805 GE-807 GE-809.

GE-831. Account: Resource Alloc and Fin Chall. 3.00 Credits.

This course provides students with federal and state directives on school finance and educational equity. Economic principles and national income measures related to public education will be discussed. Students will investigate sources of revenue, expenditures, and fiscal problems, including federal, state, and local aid, taxation, planning, debt management, income, investments, and cost forecasting. Students will examine the budget process and comprehensive annual reports used by school districts in New Jersey. The role of the New Jersey Core Curriculum Content Standards in school finance will be explored.

GE-833. Emerg Legal/Moral Issues Facing Sch Adm. 3.00 Credits.

This course covers school laws, legal principles, and critical issues pertaining to education in the United States and New Jersey. Students will explore constitutional and statutory laws, regulations, and landmark court decisions affecting policy and practice. Special topics such as search and seizure, disabilities, religion, speech, due process, and equal protection under the law will be discussed. Students will research and analyze actual case studies to ensure a problem-based approach experience.

GE-835. Personnel Adm/Publ Sec Bargaining. 3.00 Credits.

This course provides students the opportunity to assess and evaluate their organization's personnel evaluation system, analyze developmental needs, develop an improvement plan and incorporate a model to enhanced professional growth. Students will analyze, synthesize and evaluate critical factors affecting human relations, effective grouping of employees and power sources and politics in an organization. Personnel administrative functions discussed include human resource needs, personnel security matters, collective bargaining negotiations, affirmative action, recruitment, selection, tenure, termination and legal parameters. Case study, lecture, and group interaction will be employed to promote and improve management's awareness of personnel issues. Prerequisites: GE-801 GE-803 GE-805 GE-807 GE-809.

GE-839. Statistics II. 3.00 Credits.

This course applies of both quantitative and qualitative methods and analysis implemented in this course as a direct extension of Statistics I. Students will expand previous knowledge for analysis, interpretation and decision-making in quantitative research to be used in education leadership and school improvement models. Students will use statistical software to aid in their research using both descriptive and inferential statistics. Prerequisites: GE-807.

GE-840. Inno Tech Strategies for HE Learner. 3.00 Credits.

This course will explore innovative technology strategies that can be used in higher education. The course presents information about educational technology theories, systems, and models as well as give students practice with hands-on applications and technology tools. Students will produce materials that are connected to educational technology in higher education.

GE-841. Selected Topics in Elem & Second Sch Adm. 3.00 Credits.

This course provides students with the opportunity to reflect upon their role as an educational leader and expand upon their Professional Growth Plan (PGP). Through the use of cutting edge research, various case studies, debate panel discussions, group interaction, and role-playing, students will acquire the skills and apply effective methods to solve contemporary problems encountered by educational leaders. Students will analyze and assess the results of specific research projects covering critical areas of leadership and management. Prerequisites: GE-801 GE-803 GE-805 GE-807 GE-809.

GE-843. Admin Internship K-12: Superintend Cert. 3.00 Credits.

The course is aligned to the Interstate School Leaders Licensure Consortium (ISLLC) Educational Leadership Policy Standards for School Leaders and is supervised and taught by a former superintendent of schools/faculty member. The administrative internship consists of a daily log of completed administrative activities promoting the success of all students advocating, nurturing and sustaining a school culture conducive to learning implementing a vision for learning, data driven decision making and centered on the ISLLC standards. Prerequisites: GE-801 GE-803 GE-805 GE-807 GE-809.

GE-845. Advanced Quantitative Methods. 3.00 Credits.

Quantitative research methods, including theory, research design, role of educational measurement in quantitative data-based inference, evaluation and statistical analysis.

GE-864. Administration & Governance of Higher Ed. 3.00 Credits.

Overview of the organization, administrative roles and positions, administrative process, personnel management and administrator relationships within various institutions of higher learning.

GE-866. Enrollment Management and Marketing. 3.00 Credits.

This course addresses fundamental principles of marketing and enrollment management in a higher education including branding, differentiation, forecasting, and public and alumni relations. Discussion of strategic enrollment management processes includes legal and regulatory considerations related to student recruitment, financial aid, and diversity issues, as well as aligning marketing and recruitment efforts with institutional mission and goals. This course will also explore applications of online social networking systems, digital media, and other communications tools, in addition to traditional media and public relations strategies.

GE-868. Student Development and Programming. 3.00 Credits.

This course examines fundamental principles of student learning and development; the implications for student programming; and will explore strategies for effectively planning, organizing, and managing student services and programs, and for ensuring that these programs meet legal and regulatory requirements. A major focus is on the design and deployment of programs and services that can enable students from diverse backgrounds to achieve their educational goals.

GE-869. Culminating Seminar. 3.00 Credits.

This course will guide and assist in the development of the Culminating seminar. Emphasis will be placed on individual student work.

GE-871. Dissertation Seminar I. 3.00 Credits.

The course will guide and assist in the development of the dissertation proposal, writing dissertation chapters, design, data analysis, preparing articles for publication, developing research proposals for professional conferences and other professional arenas. Emphasis will be placed on individual student work with their Mentor and Dissertation Committee members.

GE-872. Grants Philanthropy and Development. 3.00 Credits.

This course will focus on the importance of fundraising in Higher Education. Emphasis will be given to alumni relations, prospect development, foundation research and proposal writing. Also included will be a primer on the legal principles of contracts and grants including how to identify sources, make the proposal, and manage the project.

GE-873. Dissertation Seminar II. 3.00 Credits.

In this course, doctoral students work individually with their Mentor and Dissertation Committee members on the completion of their dissertation. To be deemed acceptable, the dissertation must be evidence that the student has pursued a program of relevant educational knowledge in the field of educational leadership in a higher education or K-12 school system setting. Students must maintain continuous enrollment in this course until they have successfully completed and defended their dissertation. Students must have their dissertation proposal approved by the Doctoral Committee for Research Involving Human Subjects prior to registering for this course.

GE-874. Finance Budget and Resource Alloc in He. 3.00 Credits.

An overview of the budgeting process, sources of revenue, types of expenditures, and issues and innovations in financing various types of contemporary institutions of higher education. The course will also include a survey of the various business and planning operations vital to the operation of colleges and universities.

GE-876. Account: Assmnt Accred and Inst Res. 3.00 Credits.

This course explores the role of assessment in higher education, with an emphasis on designing effective student learning outcomes and departmental goals as well as institutional effectiveness strategies and review. Students will also be introduced to accreditation processes and how to use national institutional survey data to inform assessment.

GE-881. Advanced Independent Study. 3.00 Credits.

For doctoral students wishing to work with their mentor to study topics related to their dissertation.

GE-890. Dissertation Advisement I. 1.00 Credit.

In this course, doctoral students have advanced to candidacy and completed Dissertation Seminar I and Dissertation Seminar II. Students must register continuously for advancement until the dissertation is successfully defended.

GE-891. Dissertation Advisement II. 1.00 Credit.

In this course, doctoral students have advanced to candidacy and completed Dissertation Seminar I and Dissertation Seminar II. Students must register continuously for advancement until the dissertation is successfully defended.

GE-892. Dissertation Advisement III. 1.00 Credit.

In this course, doctoral students have advanced to candidacy and completed Dissertation Seminar I and Dissertation Seminar II. Students must register continuously for advancement until the dissertation is successfully defended.

GE-893. Dissertation Advisement IV. 1.00 Credit.

In this course, doctoral students have advanced to candidacy and completed Dissertation Seminar I and Dissertation Seminar II. Students must register continuously for advancement until the dissertation is successfully defended.

GE-894. Dissertation Advisement V. 1.00 Credit.

In this course, doctoral students have advanced to candidacy and completed Dissertation Seminar I and Dissertation Seminar II. Students must register continuously for advancement until the dissertation is successfully defended.

GE-895. Dissertation Advisement VI. 1.00 Credit.

In this course, doctoral students have advanced to candidacy and completed Dissertation Seminar I and Dissertation Seminar II. Students must register continuously for advancement until the dissertation is successfully defended.

GE-896. Advanced Dissertation Advisement. 3.00 Credits.

In this course, doctoral students have advanced to candidacy, completed Dissertation Seminars I and II, and have completed several terms of Dissertation Advisement. Students must register continuously for advancement until the dissertation is successfully defended.

GE-897. Advanced Dissertation Advisement II. 3.00 Credits.

In this course, doctoral students have advanced to candidacy, completed Dissertation Seminars I and II, and have completed several terms of Dissertation Advisement. Students must register continuously for advancement until the dissertation is successfully defended. Prerequisites: GE-896.

GE-899. Doctorate Independent Study. 3.00 Credits.

Doctorate Independent Study Course Type(s): Independent Study.

HL Courses

HL-500. Statistical Methods. 3.00 Credits.

This course provides students with a theoretical and practical understanding of qualitative and quantitative research methods by drawing on several qualitative research traditions such as ethnography, grounded theory, and case studies. Particular attention will be geared towards the application of these research methods to health care issues, sampling distributions, inferential statistics, estimation and hypothesis testing, and nonparametric statistics.

HL-501. Scientific Writing & Communication. 3.00 Credits.

An intensive writing course to support the develop of professional, scientific writing and effective written communication. Throughout the course, students will also take a deep dive into how research is accessed and the components of a research study, while critically analyzing scientific literature. The course will also include an emphasis on APA format and ethics in writing.

HL-502. Research and Statistical Methods. 3.00 Credits.

This course is designed to provide students with an introduction to research in the health sciences through an overview of the research process. This course provides students with a theoretical and practical understanding of qualitative and quantitative research methods. This course will also highlight ethics in the research process.

HL-505. Research Methods & Design. 3.00 Credits.

This course is designed to provide students with an introduction to research in the health sciences through an overview of the research process partnered with an emphasis on how a research question is formulated based on a review of literature. By identifying appropriate theoretical framework, both quantitative and qualitative research design strategies will be presented as a means to answer a question.

HL-510. Curriculum Design & Development. 3.00 Credits.

This course is an intensive study of the basic principle and procedure utilized in the development of health professional curricula, as well as the instruction implemented within the health care facility and community. Students will learn the principles of curricula plans and component parts and will be engaged in developing relevant evidence-based curricula addressing the current and projected needs of health care and professional education.

HL-520. Legal and Ethical Issues in Healthcare. 3.00 Credits.

This course will provide students with in-depth knowledge on legal and ethical issues with an emphasis on ethical decision making and its on healthcare as well as the ethical issues in research in the health sciences. The knowledge acquired from this course will enable students to meet the needs of the changing and expanding healthcare environment.

HL-530. Cultural Diversity & Disparities Healthc. 3.00 Credits.

People of diverse racial, ethnic, and cultural backgrounds suffer disproportionately from cardiovascular disease, diabetes, HIV/AIDS, and various forms of cancer. This course will address the reality of these health disparities and different perceptions of the healthcare system between the groups, to understand some of the cultural forces behind them.

HL-595. Health Services Issues & Trends. 3.00 Credits.

This course provides an overview of how healthcare and public health are organized and delivered in the United States. This course will focus on how theory, research, and practice interface with population health and health care delivery in the US. Health issues will be discussed by unit of analysis including individual, interpersonal, organizational, community and national levels. Behavioral health theories will be reviewed for each level of analysis and how each can be used to understand health and healthcare in the US.

HL-610. Styles of Teaching & Learning. 3.00 Credits.

This course studies the alternative relationships in the teaching-learning process by providing a framework that presents options in teaching and learning. Topics discussed include: organizing students and subject matter; managing time, space, and equipment; interacting with students; choosing verbal behavior; and creating cognitive connections with learners.

HL-615. Health Promotion & Education. 3.00 Credits.

By applying the principles and foundations of health promotion and education to the theories and practice, highlighting real world issues, this course will examine and develop health promotion & education programs to improve health related outcomes of individuals, families, and communities.

HL-620. Leadership. 3.00 Credits.

By exploring current leadership theory and practice, students will be given opportunities to think more deeply and systematically about leadership and consider these concepts in relation to health care organizations.

HL-656. Public Health and the Environment. 3.00 Credits.

Prerequisites for good health include but are not limited to the ability to have access to clean air, a stable climate, adequate water, sanitation and hygiene, sound agricultural practices, health-supportive cities and built environments and a preserved nature. Public Health officials and organizations have an obligation to not just understand policy and procedure but also to understand what prerequisites are essential for good health. This course explores the relationship professionals have with their environment, the risk management choices made, and the resulting associations that affect health and physical well-being for the individual, communities, and susceptible populations. Primarily, students will learn how a variety of environmental factors impact health outcomes, the current control measures on preventing or minimizing the health effects from the negative environmental impacts, and where to access additional information to make a difference at the individual, community, or higher level. The course is also designed to introduce students to environmental health factors that impact human health including mental health. The course will include reading assignments, lectures, class discussions, written assignments, and examinations.

HL-671. Health Care Financing & Risk Management. 3.00 Credits.

An examination of concepts related to health care financing. Emphasis will be placed on budget preparation, cost benefit analysis, managed care and on developing an understanding of reimbursement systems.

HL-672. Current Issues & Policies in Health Care. 3.00 Credits.

This course covers political, social, and economic issues affecting health care organizations. Topics include the role of government in determining health care policy, the U.S. health care delivery system, costs and financing of health care, and social welfare gains and losses. Candidates will engage in interactive discussions of current trends and economic and social issues related to efforts to reform or revise the health care system.

HL-673. Health Care Administration. 3.00 Credits.

Management, marketing, and financing of the delivery of health care will be explored. Healthcare economics is emphasized from an administrative perspective. The examination of quality versus quantity, the allocation of resources as well as relationships and conflicts among consumers and providers of health care services. Concepts related to technology, including the Electronic Medical Record (EMR) affecting health care organizations is discussed.

HL-674. Health Care Administration II. 3.00 Credits.

An examination of quality issues and measures utilized in healthcare, human resource management in healthcare settings including physician and labor relations, recruiting, retaining and developing clinical staff, as well as medical malpractice, compliance and Medicare fraud and abuse issues. Course Type(s): Online Course.

HL-676. Public Health and the Environment. 3.00 Credits.

Prerequisites for good health include but are not limited to the ability to have access to clean air, a stable climate, adequate water, sanitation and hygiene, sound agricultural practices, health-supportive cities and built environments and a preserved nature. Public Health officials and organizations have an obligation to not just understand policy and procedure but also to understand what prerequisites are essential for good health. This course explores the relationship professionals have with their environment, the risk management choices made, and the resulting associations that affect health and physical well-being for the individual, communities, and susceptible populations. Primarily, students will learn how a variety of environmental factors impact health outcomes, the current control measures on preventing or minimizing the health effects from the negative environmental impacts, and where to access additional information to make a difference at the individual, community, or higher level. The course is also designed to introduce students to environmental health factors that impact human health including mental health. The course will include reading assignments, lectures, class discussions, written assignments, and examinations.

HL-677. Community Mental Health and Wellness. 3.00 Credits.

Extensive investigations into preventing common problems will be explored. The course will focus on fostering good mental health or psychological wellness. The counselor is seen as functioning in an extremely proactive role and as a wellness educator. Topics include establishing peer mediation programs, suicide awareness, managing impulsivity, forming support groups, training peer counselors, developing study skills, learning stress reduction techniques, recognizing and dealing with depression, isolation, cultural differences, understanding issues in human sexuality, avoiding gang involvement, and improving ethnic, race and gender relations.

HL-678. Global Health. 3.00 Credits.

This course will introduce fundamental concepts and issues in global health in developed and developing countries to increase awareness of health issues from a global perspective. It introduces key global health topics and emphasizes the critical relationships between health, disease, and socio-economic development. The challenges associated with global health issues and the global efforts and strategies underway to prevent and control them will also be explored.

HL-679. Health Behavior. 3.00 Credits.

Social and Behavioral theories of health related behavior change will be reviewed to provide an understanding of and to address public health problems. As an individual's health and well-being is affected by a variety of factors, i.e. social and environmental, we will examine how these factors affect health behaviors and how these influences are used and can be used to improve health and prevent disease.

HL-685. Capstone Project. 3.00 Credits.

In the capstone experience, students will develop and execute a project geared towards the needs of a selected organization, approved by the advisor. The project will be reviewed by the faculty advisor to the internship and culminate in a formal paper written by the student that delineates the project and its implementation. Additionally, the formal paper will address the assessment of the effectiveness of the intervention. Engagement in programs such as community health organizations or health care organizations are highly suggested. Prerequisites: HL-501; Course Type(s): Capstone.

HL-695. Graduate Internship. 3.00 Credits.

This internship course allows students to acquire practical technical experience through working on specific health science leadership projects or research or teaching/ education projects in consultation with the advisor.

HL-698. Research Project. 3.00 Credits.

In this course students develop skills for the role of a scientist through a "hands-on" research experience. Working with a principal investigator and/ or research team, students participate in a research project related to the practice of health sciences. In addition to gaining knowledge in research design and in a specific topic area, students have the opportunity to participate in all aspects of research development, execution and peer-reviewed publication as a co-researcher/ author. The student researcher may have an opportunity to present the research within and outside the University as circumstances allow. Prerequisites: HL-501.

IS Courses**IS-600. Data Warehousing Lab. 3.00 Credits.**

The Data Warehousing Lab is a course that gives students hands-on experience with developing and executing database warehousing and analytics systems. ETL/ELT, data modeling, data warehouse administration and security, and non-relational databases including column-store and NoSQL databases are among the topics that students will study. Additionally, they will learn about web application integration for semi-structured data analytics and distributed data processing with Hadoop/Spark. Students who successfully complete this lab will have advanced abilities to efficiently design, develop, deploy, and manage medium- to large-scale data warehouse systems.

IS-601. Process Management & Integration. 3.00 Credits.

This course focuses on the procedures and methods that the project manager and team use to recognize, categorize, integrate, unify, and coordinate the work of projects, such as creating project management plans. The planning, carrying out, and controlling of the project scope are also given specific consideration. In order to achieve the quality criteria, processes, policies, and procedures will also be taught to the students. Pre-req: DS 530, IS 600
Prerequisites: DS-530, IS-600.

IS-602. Integrating IS Technologies. 3.00 Credits.

DS-530, IS-600.

IS-603. I.T Strategy. 3.00 Credits.

Information technology strategy provides a comprehensive overview of the strategic aspects of IT and its impact on enterprise value. Developing an IT strategy and understanding how to align it with an organization's strategic goals is critical to successfully managing the major changes the IT sector has recently undergone. This course covers IT Portfolio Management, IT Sourcing, Open Innovation, Dynamics, IT Strategy and Value Relationships, IT Strategy Development and Implementation, IT Impact Assessment, and IT Achieving Sustainable Competitive Advantage. It deals with various topics. Pre-req: IS 600, IS 601. Prerequisites: IS-600, IS-601.

IS-604. Data Integration- BI & Analytics. 3.00 Credits.

By studying business intelligence and analytics, students will acquire the perspective from the corporate world and the data literacy skills necessary to be successful in a position of strategic decision-making. Students will apply cutting-edge business analytics methods that incorporate AI, deep learning, and predictive analytics to offer insightful, fact-based responses to business-related questions. Pre-req: IS-600. Prerequisites: IS-600. Course Type(s): Hybrid Course.

JN Courses

JN-697. Topics in Global Strategic Comm & Pr. 3.00 Credits.

This course offers in-depth readings, case studies, and discussions in current issues in global strategic communication and public relations. Lectures and site visits on a trip to a foreign locale will provide a first-hand look at how strategic communications work in other nations and under different media systems and regulatory environments, providing real-world examples of what they do and the challenges they face. In addition, students will become immersed in a nation's culture through visits to museums and historical sites in addition to meeting media communication professionals. Additional course fee of \$50. Course Type(s): International (Travel).

MA Courses

MA-500. History of Mathematics. 3.00 Credits.

Students will examine the foundations of mathematics through the lenses of diverse cultural contexts, historical perspectives and philosophical paradigms; concurrently, they will solve representative problems related to mathematical developments from antiquity through the modern era. This course is especially suitable for pre-service and in-service educators.

MA-506. Geometry for Middle School. 3.00 Credits.

Metric and US standard measurement, inductive and deductive reasoning, Euclidean geometry of two and three-dimensional figures including, but not limited to: area, perimeter, volume, surface area, congruency, similarity, rotation and transformation. Coordinate geometry, iteration and fractals, geometry in the world around us, and associated mathematical processes. Methods for learning and teaching the topics are addressed concurrently with the content.

MS Courses

MS-500. Mrktg Fundamentals: Customer Experience. 3.00 Credits.

This course provides students with the skills and knowledge necessary for developing innovative and creative thinking strategies to improve digital marketing planning and execution. Emphasis is placed upon learning critical skills to identify and facilitate innovative behavior and collaboration within the organization that will increase sustainable business growth and strengthen abilities to respond to organizational changes and challenges. Course lectures, reading and projects span theory and practice and draw upon examples from multiple industry sectors and delivery channels.

MS-510. The Influence & Persuasion of Consumers. 3.00 Credits.

Understanding the factors that drive consumers in the mobile world. The components that help to influence positive decisions about their relationships, careers and challenges in daily life. Students in this course examine major concepts related to influence and persuasion as well as the relationship among attitudes, beliefs and behavior that influence consumers in the ever-changing mobile environment. Students will analyze and discuss the influence of product offerings and behavioral habits. They will also examine how mobile behavioral data can be developed and tested in the influence and persuasion processes. Students apply principles of influence and persuasion to case studies and to real-life experiences.

MS-515. Applied Market Research & Analysis. 3.00 Credits.

This comprehensive tool course will guide students through the basic concepts of experimental design and analysis techniques for marketing tests in traditional and evolving media channels. It will cover the following topics: What, when and why to test; assessing marketing test results including direct mail, banner ads, landing pages, email tests, subject line test, PPC mobile and geo data; measuring website and mobile effectiveness; determining the appropriate level of confidence for test assessment; following rules for assessing smaller marketing-research tests; full-factorial test design considerations, A/B split tests, multivariate testing; establishing online baselines and metrics. Other areas of emphasis include using analysis of variance (ANOVA), and assessing element interactions, B-to-B testing and considerations. In addition, these will be included: acknowledging the five rules of test design; determining the appropriate size for tests; seasonality testing considerations, day-parting online testing and cost-benefit analysis, and bridging test results from one test series to another.

MS-518. Mrktg Intelligence: Indust Anal/Strategy. 3.00 Credits.

Overview of marketing or marketing management with an emphasis placed on enabling the marketing manager to create strategies that "fit" the product/service to the organization's distinctive competencies and its target market. Development of decision-making skills in marketing and provides an overview of the strategic marketing management process. Different methods are used to address and exemplify the many issues and problems that are involved in creating and implementing the marketing strategy in today's ever-changing market place.

MS-520. Foundations of Social & Mobile Techs. 3.00 Credits.

The course covers concepts and techniques for retrieving, exploring, visualizing, and analyzing social network and social media data, website and mobile usage, behavioral patterns and clickstream data. Students learn to use key metrics to assess goals and return on investment, perform social network analysis to identify important social actors, subgroups, and network properties in social media. The course will look at mobile technologies, and consider their impact on digital marketing, as well as other business contexts. The potential for social and mobile technology to serve as a new profit center for firms will be explored. Student assignments will involve the hands-on use and application of social and mobile technologies. The final group project will consist of a social/mobile marketing application for a specific company or product. This course builds on student skills in integrated marketing communications by examining the role of social media and mobile communications as potential components of a campaign. Students will learn to research and write a situation analysis incorporating research in the digital arena, segment and target for digital strategies and understand consumer behavior and advertising responses to social media and mobile communications. When feasible students will explore social media and mobile platforms, social media and mobile communication strategies, SMS communications, mobile web sites and mobile search will successfully integrate digital with traditional media. Students will work with a client to evaluate their current social media and mobile executions and develop digital strategies aimed at specific goals for a brand.

MS-523. Behavioral Research Methods. 3.00 Credits.

This course will guide the marketer through both quantitative and qualitative techniques for maximizing the brand and customer relationships in an integrated-marketing environment. It will cover the following topics: Sampling techniques used in marketing: how and why to sample, types of sampling. The measures of central tendency and dispersion: how to develop and assess these measures to better understand potential data issues prior to analysis. Graphical representation of marketing data: the use of bar charts, pie charts, line charts, and other methods for showing consumer data and purchase data. Important distributional properties of marketing data: the central-limit theorem and the normal distribution. Marketing-test design and analysis: sample-size estimation and test assessment via hypothesis testing. Full factorial test design: the rules of test design. Market-research survey design and execution: types of surveys, types of questions, and test planning. Research-analysis methods: choice modeling/conjoint analysis, rank correlations. Types and usage of syndicated data: Nielsen, IRI, Simmons, and other data sources. Sizing a market: how to assess opportunities in the marketplace via online research and online services. ROI analysis: the various methods of calculating return on marketing investment, campaign management spreadsheets, calculations, marketing goals. Competitive research methods and tracking: various qualitative and quantitative techniques to assess competition in the marketplace.

MS-530. Mobile Marketing Mindset. 3.00 Credits.

This course covers the search strategies of consumer behavior and motivations that differ in the mobile environment, particularly in how Short Message Service (SMS) and Multimedia Message Service (MMS) are used in marketing communications. The course also examines the usage and impacts of Location-Based Marketing (LBM). Near Field Communications (NFC) will also be explored in such venues as kiosks, point-of-purchase posters, debit card terminals and turnstile and promotions.

MS-533. Enterprise Design Thinking. 3.00 Credits.

Students will learn a robust framework for applying design thinking techniques to key issues facing organizations across industries. Key skills developed include shared goal setting and decision-making, processes for continuous innovation, and the alignment of multi-disciplinary teams around the real needs and experiences of users and customers. Through instruction, experiential learning and an industry-recognized methodology, students will gain practice in the successful application of design thinking techniques to address common business problems.

MS-589. Topics in Management. 3.00 Credits.

Topics vary by term. Example topics may include but are not be limited to the following: advanced project management techniques; non-profit, philanthropic, and/or faith-based management; coding fundamentals for entrepreneurs, managers, and executives; and mindfulness in the workplace.

MS-615. Revenue Management and Consumer Pricing. 3.00 Credits.

This course, led by a faculty member with experience as a C-Suite executive, focuses on the role of the C-Suite as senior management and how the competing demands of that role shape the divisions and departments of the company and, inevitably, the management and budget for marketing. Understanding the impact of the value exchange between the consumer and the business. The course will be taught through lectures, readings, case-study discussions, and class exercises designed to build students' understanding of the subject matter. The real-world examples and case studies will give students hands-on experience in applying the learning to challenges they will face in their future. Prerequisites: MS-515.

MS-620. Integrated Mktg With Mobile Comm/Dev/App. 3.00 Credits.

This course will take a strategic approach to the study of Customer Relationship Marketing, providing students with the knowledge to plan, manage and assess a CRM program from a non-technical perspective and to understand the strategic options for managing the customer experience for maximum customer equity. CRM enables a company to move from a product-based to a customer-based strategy, so that instead of focusing on product differentiation as the basis of competition, it can focus on increasing the value of its best customers. Students will learn how CRM has evolved and can take the form of customer-loyalty programs, relational database management, and total quality management. Students also will study the role of CRM within the process that contemporary marketers refer to as managing customer experience, which entails considering how to deliver the most positive experiences of the brand and its products/services to target customers, new customers and existing customers. To provide students with CRM theory as well as practical application to marketing challenges, the course will comprise 4 areas: Developing methods and Criteria for a CRM Program, Planning the CRM Program-including goal setting and selection of methodologies, Implementing the CRM Program, and Metrics for Program Success. Through reading of case studies of business challenges involving the use of CRM, as well as technical and peer-reviewed articles on the latest theories and methodologies for relationship management, students will learn why, when, and how to use CRM as a strategy for increasing customer equity in the form of incremental revenue from sales, increased profit, or improved Return on Investment (ROI), and improving the value exchange with consumers. Prerequisites: MS-520.

MS-630. Web Analytics: Email Clickstream & SEO. 3.00 Credits.

In this course, students will learn the various online business models, how to optimize them to meet business objectives, and how to analyze, data and results. The subject areas to be covered include search-engine marketing, website optimization, website submission, link-marketing strategies, pay-per-click advertising campaigns, e-mail marketing tactics, affiliate marketing, customer web logs, online testing of banner ads, landing pages, other digital formats, software options for web mining, analyzing click-stream data, mobile technology and the key metrics for measuring consumer behavior online, including basket analysis and other techniques of association. When feasible, students in this course participate in the Google Challenge, a worldwide competition sponsored by Google for the application of search metrics to a local business Analytics. Prerequisites: MS-515 OR DS-660.

MS-640. Digital Mktg Analytics & User Experience. 3.00 Credits.

This course prepares students to turn business data into actionable information. Students will work with software integrate data, develop the ability to transform, analysis and create visualization of consumer behavior. As well as use technology in the context of their applications to sales, marketing impacts, the user experience and how it impacts the value exchange. Students will work through the course on a hands-on approach, guided by the instructor and using software and assigned readings/videos. They will prepare and analyze real-world data sets to learn how to develop strategic recommendations for managerial actions. Students who successfully complete the course requirements will be able to develop a 360-degree picture of the consumer/customer. To manage data the massive amount of data and carry out protocols for data access, data cleansing, and data preparation. Students also will be able to apply techniques for converting data to information, including data exploration, summarization, visualization, analyze data, interactive exploratory analytics and introductory predictive analytics. Prerequisites: MS-630.

MS-650. Capstone Consulting Engagement. 3.00 Credits.

The option gives graduate students the opportunities to work on real-world business consulting projects with local businesses that build upon the science, research and application of consumer behavior data and analysis, extending to strategic planning and identifying relevant tactics to carry out strategies. Prerequisites: MS-500 MS-510 MS-515 MS-518 MS-630.

NU Courses

NU-510. Current Issues in Health Care. 2.00 Credits.

An in-depth analysis of current issues related to health care and health care delivery systems. The impact of managed care on nursing practice. (Level 1, no prerequisites).

NU-512. Nursing Theory. 3.00 Credits.

Critical analysis of nursing theories and their application to practice, research, administration and education. The history and process of theory development in the discipline of nursing are explored. (Level 1, no prerequisites).

NU-515. Health Care Fin & Managed Care. 3.00 Credits.

An examination of concepts related to health care financing. Emphasis will be placed on budget preparation, cost benefit analysis, managed care and on developing an understanding of reimbursement systems. (Level 1, no prerequisites).

NU-520. Research: Design & Utilization. 3.00 Credits.

Critique and design of nursing studies. Exploration of scientific modes of inquiry for theory development and nursing practice. Emphasis is placed on the utilization of research findings for client outcome evaluation. (Level 1, Pre or co-requisite: Nursing Theory) Prerequisites: NU-512.

NU-535. Client Education: Strategies. 2.00 Credits.

Theory-based analysis of the pluralistic determinants of health related behaviors. Exploration of the use of current theoretical frameworks for the design, implementation and evaluation of intervention strategies in education of clients. Use of community resources for client education are stressed. (Level 1 or 2, no prerequisites).

NU-536. Advanced Pathophysiology. 3.00 Credits.

This course presents a systems approach to the physiological processes and pathological changes that impact human health and illness. (Level 1, no prerequisites).

NU-537. Pharmacology: Prescriptive Pract. 3.00 Credits.

In depth study of pharmacodynamics, pharmacokinetics and the use of drug therapy to manage health and disease states is emphasized. The Controlled Substance Act and the APN's responsibilities in drug prescription are explored. (Level 1, no prerequisites).

NU-538. Family Systems and Dynamics. 2.00 Credits.

The course incorporates concepts from family systems theory, role theory and life span development. The family and community are analyzed using a pluralistic perspective. Family functioning and change in times of crisis are explored (Level 1, no prerequisites).

NU-542. Adv Health Assessmt & Diagnostic. 3.00 Credits.

A holistic and pluralistic approach to the comprehensive health/physical assessment of the adult-geriatric client. Principles of risk assessment are integrated. The student's ability to evaluate assessment data and select diagnostic tests is developed. Includes theory and laboratory (5 hours/week) component. (Level 1) Additional course fee of \$75.

NU-558. Adv Practice Adult-Gero Nursing I. 3.00 Credits.

An intensive study of common acute and stable chronic problems of adult-geriatric clients seen in primary health settings. Health promotion and disease prevention are stressed. Students develop the knowledge and skills to assess, diagnose and evaluate these common conditions. Pathophysiology, risk factors, diagnostic tests and therapeutic management are discussed. Pluralistic as well as lifestyle factors, including nutrition and pharmacotherapy are explored in relation to the specific conditions. (Level 2) Prerequisites: NU-536 NU-537 NU-538 NU-542.

NU-559. Adv Practice Adult-Gero Nursing I PMC. 3.00 Credits.

An intensive study of common acute and stable chronic problems of adult-geriatric clients seen in primary health settings. Health promotion and disease prevention are stressed. Students develop the knowledge and skills to assess, diagnose and evaluate these common conditions. Pathophysiology, risk factors, diagnostic tests and therapeutic management are discussed. Pluralistic as well as lifestyle factors, including nutrition and pharmacotherapy are explored in relation to the specific conditions. (Level 2) Prerequisites: NU-536 NU-537 NU-538 NU-542.

NU-568. Adv Practice Adult-Gero Nursing Prtum I. 4.00 Credits.

This practicum course affords the student the opportunity to apply advanced knowledge and skills of health promotion, maintenance and disease management to plan therapeutic regimens for adult-geriatric clients in primary care settings. Advanced practice role socialization is developed. Legal, ethical and financial issues related to advanced practice are integrated (300 clinical hours are required for this course). (Level 2) Additional course fee of \$100. Prerequisites: NU-558.

NU-568L. Adv Prac Adult-Gero Nursing Prtum I Lab. 0.00 Credits.

Lab for Advanced Practice Adult-Gero Nursing Practicum I Course Type(s): Lab Courses.

NU-569. Adv Prac Adult-Gero Nursing Prtum I PMC. 4.00 Credits.

This practicum course affords the student the opportunity to apply advanced knowledge and skills of health promotion, maintenance and disease management to plan therapeutic regimens for adult-geriatric clients in primary care settings. Advanced practice role socialization is developed. Legal, ethical and financial issues related to advanced practice are integrated (300 clinical hours are required for this course). (Level 2) Additional course fee of \$100. Prerequisites: NU-559.

NU-569L. Adv Prac Adlt-Gero Nurs Prtum I PMC Lab. 0.00 Credits.

Lab for Advanced Practice Adult-Gero Nursing Practicum I PMC Course Type(s): Lab Courses.

NU-572. Adv Practice Adult-Gero Nursing II. 3.00 Credits.

Continuation of theory presented in NU-558. An intensive study of common acute and stable chronic problems of adult-geriatric clients seen in primary health settings. Health promotion and disease prevention are stressed. Students develop the knowledge and skills to assess, diagnose and evaluate these common conditions. Pathophysiology, risk factors, diagnostic tests and therapeutic management are discussed. Pluralistic as well as lifestyle factors, including nutrition and pharmacotherapy are explored in relation to the specific conditions. (Level 2) Prerequisites: NU-558 NU-568.

NU-573. Adv Practice Adult-Gero Nursing II PMC. 3.00 Credits.

Continuation of theory presented in NU-559. An intensive study of common acute and stable chronic problems of adult-geriatric clients seen in primary health settings. Health promotion and disease prevention are stressed. Students develop the knowledge and skills to assess, diagnose and evaluate these common conditions. Pathophysiology, risk factors, diagnostic tests and therapeutic management are discussed. Pluralistic as well as lifestyle factors, including nutrition and pharmacotherapy are explored in relation to the specific conditions. (Level 2) Prerequisites: NU-559 NU-569.

NU-582. Adv Pract Adult-Gero Nursing Practicum II. 4.00 Credits.

A continuation of clinical experience in NU-568. This practicum course affords the student the opportunity to apply advanced knowledge and skills of health promotion, maintenance and disease management to plan therapeutic regimens for adult-geriatric clients in primary care settings. Advanced practice role socialization is developed. Legal, ethical and financial issues related to advanced practice are integrated (300 clinical hours are required for this course). (Level 2) Additional course fee of \$100. Prerequisites: NU-558 NU-568.

NU-583. Adv Prac Adult-Gero Nursing Pract II PMC. 4.00 Credits.

A continuation of clinical experience in NU-569. This practicum course affords the student the opportunity to apply advanced knowledge and skills of health promotion, maintenance and disease management to plan therapeutic regimens for adult-geriatric clients in primary care settings. Advanced practice role socialization is developed. Legal, ethical and financial issues related to advanced practice are integrated (300 clinical hours are required for this course). (Level 2) Additional course fee of \$100. Prerequisites: NU-559 NU-569.

NU-583L. Adv Pract Adult Gero Pract II PMC Lab. 0.00 Credits.

This course is designed to fulfill certification practice requirements for the Adult Gerontology Advanced Practice students. Labs take place at preceptor institutions. Prerequisites: NU-559 NU-569 AND ALL LEVEL I COURSES. Course Type(s): Lab Courses.

NU-585. Adv Pract Nursing Project PMC. 1.00 Credit.

Opportunity to develop and present a scholarly project related to a topic in advanced nursing practice. (Level 2) Prerequisites: NU-559 NU-569.

NU-586. Adv Pract Nursing Project. 1.00 Credit.

Opportunity to develop and present a scholarly project related to a topic in advanced nursing practice. (Level 2) Prerequisites: NU-558 NU-568.

NU-587. Continuous Matriculation Master's Pract. 0.00 Credits.

This course is designed to allow the masters student to acquire clinical hours during the summer session if the student has not completed 300 practicum hours in NU 568, or if the student wishes to complete clinical hours prior to enrolling in NU 582. Prerequisites: NU-568.

PA Courses

PA-500. Executive Communication. 3.00 Credits.

Mastery of effective written communication is essential for success in the business world. In this course, students will learn to analyze and produce texts in a variety of formats and genres based on their particular professional goals.

PA-501. Intro to Public Administration & Service. 3.00 Credits.

Students will learn how to improve the efficiency and effectiveness of public sector and non-profit institutions by exploring and applying key paradigms in public administration and organizational behavior. By studying the factors that motivate economic and political behavior, students will learn how to formulate practical plans and strategies to help solve social problems. Studying organizational culture will expose forces that are critical in understanding how to implement change. This course will include an analysis of complex cases that relate to the evolving relationships between the public, private, and non-profit sectors.

PA-510. Ethics and Society. 3.00 Credits.

Students survey ancient, modern, and contemporary normative frameworks and methods of ethical inquiry. These normative frameworks, derived from moral philosophy, moral theology, and political philosophy, will be engaged to critically question urgent and contemporary social matters and policies. Case studies of ethical leadership and professional ethics will provide models of right thinking and conduct within the professions. Finally, inquiry will be made into how we might understand the common good as well as how to work to achieve it.

PA-511. Internship (Domestic or International). 3.00 Credits.

Designed to provide students the opportunity to utilize their academic study with exposure to public sector and/or non-profit environment(s). This experience provides students greater understanding of the practical challenges faced by public sector and non-profit entities. Prerequisites: PA-501 PA-510 PA-520 PA-540.

PA-512. Sustainability in Public Administration. 3.00 Credits.

How can we endure in the face of environmental degradation, climate change, and resource limitations? These questions are integral to the university's commitment to inspire students to lead ethically, serve compassionately and promote justice in our ever-changing urban and global environment. The class will look at the roots of past environmental disasters, as well as alternative responses to avoid future crises. Much of the work in this class will be with local government and/or community advocacy organizations. Prerequisites: PA-501.

PA-513. Advanced Independent Study in Public Adm. 3.00 Credits.**PA-514. Health Care Issues. 3.00 Credits.**

By 2020, health care spending (including public, non-profit and private resources) will average almost \$14,000 for every man, woman and child. This course will explore ways that government and non-profit organizations can prevent diseases and improve health care in more efficient and equitable ways. Students will study the development, structure, and current issues associated with the delivery and utilization of health services. Health care topics covered include regulation, financing, insurance, and ethics along with a special emphasis on serving low-income communities.

PA-515. Leadership and Organizational Change. 3.00 Credits.

This course provides the framework and skills that are critical to leading organizations in an environment of new information technologies, globalization, rising expectations, and shifting demographics. Leadership entails making decisions, setting direction, mobilizing people, developing the capacity of actors, and adapting to changes that emerge along the way. Leaders must implement changes in a web of complex, multi-organizational environments. This class will prepare future public sector and non-profit leaders to navigate the political processes and institutions in which changes must be evaluated and implemented.

PA-520. Research and Analytic Methods. 3.00 Credits.

A variety of research methods can be used to evaluate public programs, inform policy decisions, determine operating and capital requirements, and track the performance of existing programs. This class focuses on selecting and using appropriate methodologies, as well as assessing and communicating the strengths and weaknesses of completed research work. Students will learn tools and techniques that are needed to identify, utilize and interpret research; make informed decisions; and develop recommendations to other public administrators.

PA-530. Public Sector Finance and Budget. 3.00 Credits.

This course examines how governments obtain and spend financial resources. Students explore the socio-economic and political forces that shape the fiscal environment within which governments operate, as well as the fiscal relationship between local, state, and federal governments. Students will become familiar with the tools and methods used to determine, create, and analyze government tax and major expenditure policies. Key concepts that will be covered include budgeting, revenue sources, cost controls, and financial issues relating to public sector and non-profit institutions.

PA-535. Political Economy. 3.00 Credits.

This course will cover basic economic concepts and apply them to public administration issues. Specifically, it will focus on political and economic behavior by characterizing the incentives of actors and the context in which these actors make decisions and influence outcomes. Students are introduced to microeconomic and macroeconomic problems so that they can learn how such approaches can be used to address contemporary policy questions.

PA-540. Management and Conflict Resolution. 3.00 Credits.

This course focuses on models, qualities and characteristics of management and leadership within the public and non-profit sectors. Students will explore concepts of strategic management, team building, shared vision, pluralism, empowerment, agenda setting, and human resource management. Central to this class is the examination of how disputes are resolved from the perspectives of management, law, government, media, labor and the public.

PA-550. Quantitative Methods for Public Admin. 3.00 Credits.

Public administrators need a solid understanding of statistical concepts and their actual applications. Rather than tedious number crunching and incomprehensible data manipulation, students in this course learn how statistics is really about creative information gathering and analysis. Statistical processes and procedures allow students to extract gems of information from tangled spools of data. Statistics also make it possible for public administrators to see beyond the often chaotic surface, get to the heart of the matter, and make decisions based upon quantitative data. Prerequisites: PA-520.

PA-555. Public Policy. 3.00 Credits.

Students will study the "who, what, when, where, and why" of the public policy making process by examining specific policy dilemmas and the roles of relevant institutions and actors. The various stages of the policy making process will be explored including defining problems, identifying policy options, evaluating alternatives, and making decisions. The complex inter-relationship between various levels of government, the non-profit and the private sectors will be highlighted. As part of a semester-long assignment, students will identify a local public policy problem and then evaluate potential alternatives to help solve the problem.

PA-560. Community Organizing and Development. 3.00 Credits.

Community organizing is the way people get together to bring about positive change in their lives and their communities. From potholes and litter to jobs and housing, local residents come together to improve their neighborhoods. Community organizing has been and always will be an essential tool to improving the quality of life of people and communities. In this course, through case studies and semester-long neighborhood-based projects, students will learn how community organizing and community development can be effective ways to improve people's lives.

PA-565. Seminar in Social Justice. 3.00 Credits.

This seminar in social justice introduces the student to principles and public practices of social justice on local, national and global levels. It will think through the social construction of injustice and oppression as well offering frameworks for empowerment and social justice. Once the foundational work is completed in the seminar, students will engage in intensive and specialized readings in areas such as inequality, impoverishment, climate change, racism, sexism, heterosexism, ableism, etc. as well as in social movements, nonviolent social change, etc. Prerequisites: PA-501 PA-510 PA-520 PA-530 PA-540.

PA-570. Managing Information Technology. 3.00 Credits.

Information Technology (IT) competency is crucial for 21st century public sector and non-profit managers. IT can improve an organization's efficiency and help meet stakeholders' high expectations for timely and relevant information. In this course, students will learn how public administrators can effectively manage both IT projects and services. Topics that will be covered include IT operations, risk management, and security, as well as rapidly evolving technologies such as mobile, cloud, social media, and open source software. Students will also learn how to analyze the costs and benefits associated with implementing new technologies. Prerequisites: PA-501 PA-520.

PA-580. Capstone Project. 3.00 Credits.

The capstone course is the culminating experience for students enrolled in the MPA program. Students perform one of the following types of projects to demonstrate their mastery of public administration's principles and best practices: (1) identify solutions to address a public policy problem, (3) recommend improvements to a public or non-profit organization, or (3) develop potential legislation and identify the coalition that would be needed to pass it. These projects can build upon research performed for other classes or internships. They are not merely classroom exercises, but rather documents that will contribute to the communities where Saint Peter's students live, work, and study. Prerequisites: PA-501 PA-510 PA-520 PA-530 PA-540; PA-550 PA-555 PA-560 PA-565 PA-570; Course Type(s): Capstone.

PA-590. Intro to International CJ. 3.00 Credits.

In this course, students will be informed of a wide range of topics relevant to criminology, criminal justice, and global justice. There are three parts of comparative criminal justice, international criminology, and transnational and global criminology. This course introduces students to the nature and cause of crime at the international level and to the mechanisms for its prevention and control. Components of the criminal justice system as they apply to transnational and international law and human rights in addressing crimes against humanity. This course is intended to equip students with the knowledge and skills needed for careers in which the globalization of crime plays an important role.

PA-591. Applied Research Method in Cj. 3.00 Credits.

This research-based, applied research method in CJ is an in-depth, critical analysis of a social science topic related to criminology and criminal justice. Each student is expected to select a topic of criminological importance, review the current research literature, complete an original independent research project, and make a presentation about the empirical findings. The ultimate result of this course is the research paper; you are expected to design, conduct a research project, and present your findings in a journal article-style paper. A Power Point presentation of your findings is also required at the end of the semester. For these presentations, you will be divided into panel groups of three, with an overall theme. This mimics the presentation model of American Society Criminology or Academy of Criminal Justice Sciences conferences. The instructor's mission in this course is to provide you with structured guidance through the research and writing process and help you complete meaningful research in criminology. By conducting your own research, you will gain first-hand experience of applying theories and methods to investigate the various aspects of criminal behavior.

PA-592. Internship. 3.00 Credits.

Internships are off-campus experiential learning activities designed to provide students with opportunities to make connections between the theory and practice of academic study and practical application of that study in a professional work environment. Internships offer the opportunity to "try out" a career while gaining relevant experience and professional connections. Internships are completed under the guidance of an on-site supervisor and faculty sponsor, who in combination with the student will create a framework for learning and reflection.

PA-598. Cross-National Gender-Based Policies. 3.00 Credits.

Gender equality is not only a fundamental human right but a necessary foundation for a peaceful, prosperous, and sustainable world. According to the United Nations, the world is not on track to achieve gender equality by 2030. Women's health services, already poorly funded, have faced major disruptions. Violence against women remains endemic. And despite women's leadership in responding to COVID-19, they still trail men in securing the decision-making positions they deserve. The social and economic fallout from the COVID-19 pandemic has made the situation even bleaker. Progress in many areas, including time spent on unpaid care and domestic work, decision-making regarding sexual and reproductive health, and gender-responsive budgeting, is falling behind. Further, the deleterious results proved worse for women of color. Policies on gender equality in the U.S. and those of Europe vary but clearly, these more prosperous nations must take the lead and bring other nation's policies toward this goal. The first step to progress is always shining a light on the issue, but as women are not a monolithic group, there is no catch-all phrase that unites constituencies. In order for "#5 of the United Nations' Sustainable Development Goals: Achieve gender equality and empower all women and girls" to be attained, there needs to be widespread education and accelerated evolution. This can only be accomplished by acknowledging the obstacles, building consensus, and pushing for systemic change. Course Type(s): International (Travel).

PCP Courses**PCP-505. Crisis Communication Mini Certificate. 3.00 Credits.**

The Crisis Communications Mini-Certificate provides students with competency in crisis management and plan development, influencing and engaging stakeholders, the training of spokespeople, the use of social media before and during a crisis, and effective brand management and reputation building.

PS Courses**PS-500. Graduate Statistics. 3.00 Credits.**

Review of issues related to descriptive and inferential statistics. Statistical topics include, but are not limited to, parametric techniques such as t-tests, analysis of variance, and simple and multiple regression analysis. Heavy emphasis will be placed on application of techniques using statistical software and interpretation of results.

PS-501. Change for Each Student. 3.00 Credits.

PS-502. Change for Each Student. 3.00 Credits.

PS-503. Change for Each Student. 3.00 Credits.

PS-504. Change for Each Student. 3.00 Credits.

PS-505. Research Methods and Design. 3.00 Credits.

In this advanced level course, various approaches and techniques for conducting behavioral and social research are covered with a strong emphasis on experimental methods.

PS-530. Introduction to I/O Psychology. 3.00 Credits.

Survey of the major topics in organizational psychology including work motivation, job satisfaction, stress, leadership, communication, job design, organizational development and organizational theories.

PS-540. Organizational Development. 3.00 Credits.

Foundations of organizational development. Discussion of topics dealing with the need for change in organizations, how to initiate procedures for organizational change and measure the effect of the change agents, the influence of change at both a formal and informal level and how to overcome resistance to change.

PS-550. Personnel Psychology. 3.00 Credits.

A comprehensive survey of current practices in employee selection, evaluation compensation and development. Current topics such as fair employment testing are reviewed.

PS-560. Ethics & Professional Issues in I/O. 3.00 Credits.

An introduction to issues faced in professional practice and importance of ethical behavior in the practice of Industrial/Organizational.

PS-570. Leadership Theory. 3.00 Credits.

A review and integration of the research and popular wisdom on leadership through readings, case studies and discussions on the elements of successful management and leadership. Students will examine various theories of leadership and characteristics of prominent leaders across varying industries.

PS-580. Social Psychology. 3.00 Credits.

This course surveys and analyzes the theoretical and empirical literature of modern social psychology. Topics include the social psychology of the psychology experiment, attitude development and change, group processes and conflict, role theory, ecological psychology, socialization, organizations and workplaces, and a number of other themes and issues focused on the individual's relationship to the larger social structure.

PS-585. Motivation. 3.00 Credits.

Cognitive and behavioral theories of motivation and their application to employee satisfaction and performance, with emphasis on the concepts of intrinsic and extrinsic motivation, equity, goals and incentives, values, needs and expectancies.

PS-590. Group Dynamics. 3.00 Credits.

This course examines the processes that occur among a group of decision makers or team members, with emphasis on the factors that facilitate positive outcomes. The patterns of interaction among the decision makers are identified.

PS-600. Contemporary Issues in I/O Psychology. 3.00 Credits.

Concentrated studies in a variety of topics in organizational psychology, such as decision making, creativity in organizations, diversity issues, and organizational learning.

PS-610. Psychometrics. 3.00 Credits.

This course surveys the theory, construction and application of psychological tests. Topics include the statistical concepts underlying measurement; reliability and validity.

PS-620. Job Analysis and Performance Appraisals. 3.00 Credits.

Course considers conceptual and practical issues and procedures for performance prediction, assessment, and appraisal in the workplace. Appraisal methods and rating formats are discussed in relation to issues of criteria relevance, legal considerations, and the distinction between subjective ratings and objective measures of performance.

PS-630. Employee Relations Dynamics. 3.00 Credits.

This course introduces an understanding of employee relations, emphasizing the importance of fostering positive interactions between employers and employees. Students will explore key concepts, legal frameworks, and practical strategies for managing employee relations effectively. The course covers topics such as conflict resolution, performance management, disciplinary actions, labor relations, and the role of human resources in maintaining a harmonious workplace. By the end of the course, students will be equipped with the skills and knowledge to handle a wide range of employee relations issues and promote a positive organizational culture.

PS-645. Cross-Cultural Issues. 3.00 Credits.

Intensive study and application of theories of cross-cultural issues in the workplace. Examination of issues of race, ethnicity, gender, religion, and sexual preference within the context of dominant Western Culture.

PS-650. Conflict Resolution. 3.00 Credits.

An examination of conceptual models of human conflict in interpersonal, intragroup, and intergroup situations. Emphasizes development of practical skills in resolving conflict both as a principal actor in the conflictual relationship and as a third party.

PS-655. Organizational Mgmt: People & Processes. 3.00 Credits.

Any high performing organization needs two winning ingredients: people and processes. In this course, we will touch on how to recruit and retain top performers and resolve conflicts between co-workers to assure alignment. We will also learn to assess and implement effective processes at work.

PS-675. AI & Psych.: Innovations in Org. Dev. 3.00 Credits.

Students will engage in practical simulations, weekly assignments, and discussions to develop consulting skills, explore innovative applications of AI and behavioral science, and apply I/O Psychology principles to real-world organizational challenges. The course culminates in a capstone project simulating a full consulting engagement.

PS-685. Capstone Project. 3.00 Credits.

Projects are selected by the students with permission of the instructor. Emphasis on individual study of the literature and, where appropriate, research work. This course is an alternative to a Master's thesis.

PS-690. Thesis I. 3.00 Credits.

A program of selected research tailored to the interest and capability of the individual student under the guidance of a departmental graduate adviser.

PS-691. Thesis II. 3.00 Credits.

Successful implementation and completion of the project developed in the Thesis I course.

UR Courses**UR-501. Change for Each Student. 3.00 Credits.****UR-502. Change for Each Student. 3.00 Credits.****UR-503. Change for Each Student. 3.00 Credits.****UR-504. Change for Each Student. 3.00 Credits.**